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ABSTRACT

This annotated bibliography presents descriptions of sources related to the construction, use, and scoring of portfolios for assessment. Both student and professional staff portfolios are considered, as are theoretical issues and practical examples of portfolio use. Articles cover all grade levels and many subject matter areas. There are two sections to the bibliography: the articles themselves in alphabetical order by primary author and an index to help users find relevant references. Each article has been analyzed according to descriptors developed to make articles easier for users to find. Documents in the bibliography may be obtained from the sources listed for each entry. The bibliography lists 233 print and 3 electronic sources. (SLD)

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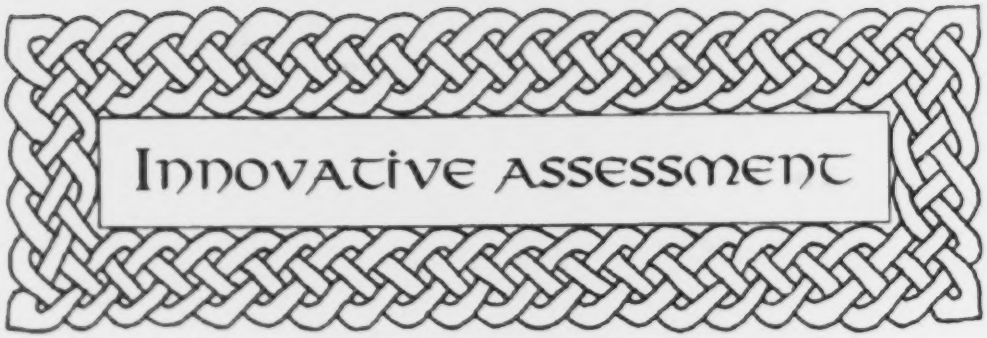

Bibliography of Assessment Alternatives:

PORTFOLIOS

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Innovative Assessment

Bibliography of Assessment Alternatives: PORTFOLIOS

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BIBLIOGRAPHY OF ASSESSMENT ALTERNATIVES: PORTFOLIOS

December 1996

Introduction

Few topics in education have generated the intensity of interest as portfolios. In an effort to assist the many educators that are experimenting with this concept, the Assessment Resource Library (formerly Test Center) at Northwest Regional Educational Laboratory (NWREL) is valiantly attempting to keep up with the avalanche of articles and papers being produced on this topic. The following annotated bibliography represents articles collected and reviewed by Assessment Resource Library staff to date.

There are two sections to the bibliography: the articles themselves in alphabetical order by primary author, and an index. The index helps users find relevant references and was developed because the articles in this bibliography are diverse: both student and professional staff portfolios, both theoretical articles about portfolios and actual samples of portfolio systems, and examples for all grade levels and many subject areas. In order to make articles easier for users to find, a set of descriptors was developed. Each paper was analyzed using this set of descriptors, and an index using the descriptors is provided. For example, all articles describing mathematics portfolios are listed under subject area "Math" (#23). The set of articles preceeded by a "23" discuss math portfolios. A complete listing of all descriptors (with a brief definition of the descriptor) prefaces the index.

The documents on the bibliography may be obtained from the sources listed for each entry. (Many developers are teachers and school district staff; please be considerate of their time and resources when requesting materials.) In the states of Alaska, Idaho, Montana, Oregon and Washington the documents can be borrowed free of charge on a three-week loan from the Assessment Resource Library. Users in other states are charged a handling fee. The shelf number for each item is listed at the end of the article; for example, AL# 123.4ABCDEF. Please contact Matthew Whitaker, Assessment Resource Library Clerk, at (503) 275-9582 or use e-mail: arl@nwrel.org for more information.

Adams, Dennis, and Mary Hamm. ***Portfolio Assessment and Social Studies: Collecting, Selecting, and Reflecting on What Is Significant.*** **Located in: Social Education 56, February 1992, pp. 103-105.**

This is a general orientation to portfolios and includes a general rationale for the use of portfolios in social studies, types of items that might be included in such portfolios, various purposes for such portfolios and how this might affect content, types of containers for portfolios, and a short list of what might be included in a "teaching portfolio" to help teachers self-reflect.

(AL# 700.6PORASS)

Ames, Cheryl K. ***Self-Reflection: Supporting Students in Evaluating Themselves as Readers,*** **1992. Available from: Beaverton School District, PO Box 200, Beaverton, OR 97075, (503) 591-8000, fax (503) 591-4415.**

The author discusses high school student self-reflection in reading—its importance and how to promote it in students. Samples of student self-reflection are included.

(AL# 440.6SELRES)

Ames, Cheryl K. and Hilary Sumner. ***Supporting At-Risk Students in Revaluing Themselves Through Self-Reflection.*** **Available from: Beaverton School District, PO Box 200, Beaverton, OR 97075, (503) 591-8000, fax (503) 591-4415.**

This is a paper presented at the Northwest Evaluation Association Fifth Annual October Institute, October 21, 1992. This document is a series of detailed overheads from a presentation that provide a nice summary of the major considerations in portfolios, focusing on student self-reflection and control over the portfolio as the key to success. The document includes help on how to promote student self-reflection, and a developmental continuum for self-reflection.

(AL# 150.6SUPATR)

Arter, Judith A. ***Integrating Assessment and Instruction,*** **1994. Available from: Northwest Regional Educational Laboratory, 101 SW Main, Suite 500, Portland, OR 97204, (503) 275-9582, fax (503) 503) 275-9489.**

This paper discusses how, if designed properly, performance assessments (including porfolios) can be used as tools for learning in the classroom as well as tools for monitoring student progress.

(AL# 150.6INTASI)

Arter, Judith A. ***NWEA Student Self-Reflection Discussion Group*****, 1992. Available from: Northwest Regional Educational Laboratory, 101 SW Main, Suite 500, Portland, OR 97204, (503) 275-9582, fax (503) 275-9489.**

In 1992 the Northwest Evaluation Association (NWEA) hosted a one-day event to explore student self-reflection. Each participant brought examples of student self-reflection along with information about the context under which it was produced. The document presented here is a compilation of the self-reflection materials brought by participants and a summary of the discussion surrounding these examples.

(AL# 000.6NWESTS)

Arter, Judith A. ***Performance Criteria: The Heart of the Matter*****, 1994. Available from: Northwest Regional Educational Laboratory, 101 SW Main St., Suite 500, Portland, OR 97204, (503) 275-9582, fax (503) 275-9489.**

This paper discusses an important issue that pertains to performance assessment in general—the need for clear and well thought-out scoring mechanisms. The paper discusses what performance criteria are, the importance of good quality performance criteria, how to develop performance criteria, and keys to success.

(AL# 150.6PERCRH)

Arter, Judith A. and Pearl Paulson. ***Composite Portfolio Work Group Summaries*****, 1991. Available from: Northwest Regional Educational Laboratory, 101 SW Main, Suite 500, Portland, OR 97204, (503) 275-9562.**

These two documents summarize the discussions of a work group at two different NWEA portfolio retreats on the subject of composite portfolios. The work group defines a composite portfolio as "a purposeful collection of student work that tells the story of a group's efforts, progress, or achievement. This collection must include: guidelines for selecting portfolio content, criteria for judging merit, and evidence of self-reflection." The documents describe the various forms that these composites could take and some issues that might arise when developing composites.

(AL# 150.6COMPOW)

Arter, Judith, Ruth Culham, and Vicki Spandel. ***Classroom Assessment Series: Using Portfolios of Student Work in Assessment and Instruction*****, 1992. Available from: IOX Assessment Associates, 5301 Beethoven St., Suite 109, Los Angeles, CA 90066, (310) 822-3275, fax (310) 822-0269.**

This is a 45-minute video and associated training materials (trainer's guide, handouts, overheads, background reading) for a one-half day workshop on the use of portfolios in

instruction and assessment. Topics covered include: what portfolios are, the many purposes for which portfolios have been used, the various design decisions that need to be made to develop one's own portfolio system, developing performance criteria, and how purpose will affect these design decisions.

The tape is intended to be used in an interactive manner—a portion of the video is viewed and then workshop participants engage in discussions or activities. Complete instructions for using the tape in this fashion are included. There is a skit at the beginning of the tape to introduce the topic of portfolios and interviews with students and a teacher at the end of the tape. (Note: The document is shelved under two different numbers—"t" refers to the written materials, "v" to the video.)

(AL# 150.6CLAASt13 and AL# 150.6CLAASv13)

Arter, Judith A., and Vicki Spandel. *Using Portfolios of Student Work in Instruction and Assessment*, 1991. Available from: Northwest Regional Educational Laboratory, 101 SW Main, Suite 500, Portland OR 97204, (503) 275-9582. Also located in: Educational Measurement: Issues and Practice, Spring 1992, pp. 36-44. ERIC ED#328 586.

The authors review the rationale for using portfolios, present a definition for portfolios, discuss purposes for portfolios and how this can affect their content, summarize portfolio systems for various purposes, provide examples of questions that can be used to stimulate student self-reflection, discuss composite portfolios, review development considerations, and discuss issues related to the use of portfolios as assessment tools.

(AL# 150.6USIPOI)

Arter, Judy, Vicki Spandel, and Ruth Culham. *Portfolios for Assessment* and *Instruction*, 1994. Available from: Northwest Regional Educational Laboratory, 101 SW Main St., Suite 500, Portland, OR 97204, (503) 275-9500, fax (503) 275-9489.

This short paper was developed for the ERIC digest series. It summarizes current consensus about portfolios.

(AL# 150.6PORFAS)

Assessment Training Institute. *Classroom Assessment: The Key to Student Success*, 1996. Available for loan from: Assessment Resource Library, Northwest Regional Educational Laboratory, 101 SW Main St., Suite 500, Portland, OR 97204, (503) 275-9582, fax: (503) 275-0450, e-mail: testcenter@nwrel.org

At the 1996 classroom assessment conference, one day was devoted to "Using Assessment as a Teaching Tool." This document includes the handouts from six of the half-day sessions:

- Focus on performance assessment
- Focus on portfolios
- Student-involved conferences
- Senior projects
- Innovative use of paper and pencil tests
- Cooperative learning environments

Since these are handouts, there is not necessarily text to connect them, nor show how they are used. Therefore, this document is probably most useful to knowledgeable persons looking for ideas.

(AL# 150.6CLAASK)

Association for Supervision and Curriculum Development (ASCD). *Teacher Portfolios—Tools for Improving Teaching and Learning.* Located in: Education Update 38, December 1996, pp. 1, 6. Available from: ASCD, 1250 N. Pitt St., Alexandria, VA 22314, (703) 549-9110.

This short article describes a teacher self-assessment portfolio in which teachers:

- Identify an issue that's been bugging them
- Specify a goal for themselves in addressing "the issue"
- Develop a plan
- Implement the plan
- Reflect upon the results and document it all in a portfolio

No criteria for portfolio quality nor technical information is included.

(AL# 130.4TEAPOR)

Athanases, Steven Z. *Teachers' Reports of the Effects of Preparing Portfolios of Literacy Instruction.* Located in: The Elementary School Journal 94, March 1994, pp. 421-439.

The author examines the impact on classroom instruction and assessment of teacher-developed portfolios by documenting teacher literacy and reading instruction for a school year. After constructing their portfolios, 24 third- and fourth-grade teachers convened in June for two days of portfolio follow-up exercises at an assessment center. This article

examines one third-grade teacher's portfolio, along with her reflections on how the project influenced her teaching and thinking. Self-report data from 18 other teachers extend this teacher's reflections. Teachers reported using more varied strategies for assessing student progress and improving literature-based language arts instruction. They also reported enhanced reflection about teaching, self-confidence, and sense of collegiality.

(AL# 130.6TEAREE)

Austin, Terri. *Changing the View—Student-Led Parent Conferences*, 1994. Available from: Heinemann, 361 Hanover St., Portsmouth, NH 03801.

Although this short book is formally about student-led parent conferences (based on portfolios), it is really about much more. The author discusses the need (and how to) change the interactions between students and teachers on a day-to-day basis in the classroom, how to build the student skills needed for the parent conference, and how to better interact with parents. These are essential building blocks for student-led parent conferences and for building an environment in which students take control of their own learning. The author provides great ideas for:

- Building a sense of community in the classroom
- Communicating with parents
- Clarifying what we value by discussing the criteria for success
- Encouraging self-reflection
- Grading
- Actually setting-up and doing the conferences
- Portfolio logistics and management

The book contains lots of letters, student work, student dialogue, and self-reflections. No technical information is included.

(AL# 150.6CHAVIS)

Bailey, Jane, and Jay McTighe. *Reporting Achievement at the Secondary Level: What and How.* Located in: Thomas R. Guskey, Ed., ASCD Year Book 1996—Communicating Student Learning, 1996, Chapter 10, pp. 119-140. Available from: Association for Supervision and Curriculum Development, 1250 N. Pitt St., Alexandria, VA 22314, (703) 549-9110, fax (703) 299-8631.

The authors show multiple examples of grading and reporting systems at the secondary level that are changing to more accurately reflect student achievement. They provide a nice framework for describing grading and reporting systems—what is assessed (content); why it is assessed (report progress, identify students for special programs, etc.); how it is assessed (grades, percentages, checklists, rating scales, written narratives, work samples, etc.); and who is the audience (parents, students etc.) The authors show examples of each type and

discuss their advantages and disadvantages. Their classification scheme provides a useful way to think about grading issues and their discussion of advantages and disadvantages is good; some of the samples chosen to illustrate a method, e.g., portfolios, is a little weak.

(AL# 150.6REPACS)

Barrett, Helen C. *Technology-Supported Assessment Portfolios.* Located in: The Computing Teacher 21, March 1994, pp. 9-12.

The author reviews software that has been developed to support classroom portfolio development. The author describes and evaluates the flexibility and features of the systems but provides no critical review from the standpoint of what constitutes a sound portfolio procedure. The author also recommends hardware needed to adequately operate the software.

(AL# 150.6TECSUA)

Barton, James, and Angelo Collins. *Portfolios in Teacher Education.* Located in: Journal of Teacher Education 44, May-June 1993, pp. 200-210.

The authors describe the use of portfolios for undergraduate literature and graduate science teacher-education students. The authors discuss the rationale for use of portfolios, the portfolio process, key questions, and specific application to literature and science. Among the points they make are:

1. Portfolios are important to use in higher education because we need to model new instructional strategies if we expect students to use them in their classrooms when they become teachers; and we need to match student goals in higher education classes to appropriate assessment—"As a program changes, so must the ways that success in meeting the program's objectives are measured. The rapidly evolving role of reading specialists demands change in the evaluation of professional competence."

2. The key steps in developing a useful portfolio system include: (a) a clear purpose for the portfolio (e.g., one portfolio purpose in literacy is to help students integrate theory and practice so that they can create their own thematically based literature lessons); (b) evidence compiled to show that the student has successfully accomplished the purpose of the portfolio; and (c) evaluation of the portfolio using the question, "Am I convinced that the student has met or made progress toward the stated goal?"

No samples of student work are included. Criteria for portfolios are discussed. No technical information is included.

(AL# 130.4PORTEE)

Beacon Heights Elementary School. ***Portfolio Power, 1992.*** **Available from: Beacon Heights Elementary School, 1850 South 2500 East, Salt Lake City, UT 84108.**

This book was written by the K-6 students at Beacon Heights Elementary School because of their excitement about portfolios. One chapter was written by each grade level. The book includes: student definitions of portfolios, uses of portfolios as perceived by the students, quotes about the value of portfolios, lots of "how to" and practical tips, an appendix with forms, and some samples of student work. This would be a good book to share with students.

(AL# 400.3PORTPR)

Belanoff, Pat and Marcia Dickson, Eds. ***Portfolios Process and Product, 1991.*** **Available from: Boynton/Cook Publishers, Inc., Heinemann Educational Books, Inc., 361 Hanover St., Portsmouth, NH 03801, (603) 431-7894.**

This book is a set of papers by college and university authors that describe their attempts to use portfolios in their classes. Portfolio purposes include proficiency testing, program assessment, and instruction. A final chapter deals with political issues. Much of the focus is writing, including business writing and writing in content areas.

(AL# 000.6PORPRP)

Bellanca, James, Carolyn Chapman, and Elizabeth Swartz. ***Multiple Assessments for Multiple Intelligences*****, 1994. Available from: IRI/Skylight Training and Publishing, Inc., 2626 S. Clearbrook Dr., Arlington Heights, IL 60005, (800) 348-4474, (847) 290-6600, fax: (847) 290-6609, e-mail: irisky@xnet.com**
Internet: http://www.business1.com/iri_sky/

The authors have created a logical and usable guide for assessment in the classroom based on the premise that the seven intelligences should form the basis for curriculum, instruction, and assessment. The authors first introduce "strategies" for assessment such as journals, exhibits, and performances; and "tools" for assessment such as rubrics, checklists, and quizzes. Then there is a chapter devoted to each intelligence that covers: (a) the definition of the intelligence, (b) why the intelligence is important in the curriculum, (c) examples of instructional processes that develop the intelligence, (d) sample "tools," and (e) sample "strategies".

There is a nice section on portfolios that describes four standards for a good portfolio: organized, selective, representative, and insightful. I like many of the ideas in this book. The rubric examples are a little too sketchy for my taste, and it seemed that the book is best used by teachers who already have a basic understanding of the seven intelligences. No technical information is included.

(AL# 000.6MULASM)

Bietau, Lisa. ***Student, Parent, Teacher Collaboration.*** **Located in: Tara Azwell and Elizabeth Schmar (Eds.),** **Report Card on Report Cards**, **1995, Chapter 11, pp. 131-153. Available from: Heinemann, 361 Hanover St., Portsmouth, NH 03801, (603) 431-7894.**

The author describes her own experience with student-led parent conferences in the broader context of promoting student-parent-teacher collaboration. She describes her use of portfolios in the process. One extended fourth grade student example is given. No technical information is included.

(AL# 150.6STUPAT)

Bird, Tom. ***Notes on an Exploration of Portfolio Procedures for Evaluating High School Biology Teachers*****, 1989. Available from: Teacher Assessment Project, Stanford University, School of Education, CERAS 507, Stanford, CA 94395, (415) 725-1228.**

This article describes the work on portfolios done in the biology component of the Teacher Assessment Project through March, 1989. There are seven "entries" in the portfolio: a self-description of previous teaching background and current teaching environment; a unit plan; a log of student evaluation procedures; a description of a lesson in which a textbook is substantially supplemented or replaced with other materials; a videotape of a laboratory lesson; a log of professional interactions; and a log of community interactions. The article describes these "entries" in some detail, and adds information about considerations in developing them.

(AL# 130.4NOTONA)

Bishop, David. ***On Curriculum Alignment, Anacondas, and Reading Assessment.*** **Located in:** **Kentucky English Bulletin** **39, Winter 1990, pp. 58-66.**

In this paper the author reviews some of the problems with using norm-referenced, multiple-choice tests to measure student progress in reading, and then describes a possible portfolio approach for grades K-6. A very useful part of the paper is a description of what the author feels the portfolio should show about students. There are six key areas: fluency (ease with reading, amount read, frequency of reading), power (norm- and criterion-referenced test scores), growth (changes in skill, affect and independence), range (diversity of reading, reading in other subject areas), depth (depth of understanding of individual readings and a focal point for reading), and reflection (both self-reflection and reflection on the writing of others).

(AL# 440.3ONCURA)

Bishop, Wendy. ***Revising the Technical Writing Class: Peer Critiques, Self-Evaluation, and Portfolio Grading.*** **Located in: The Technical Writing Teacher 16, Winter 1989, pp. 13-25.**

This paper proposes that technical writing classes include more than just the conventions of writing in a particular discipline. They should also attend to the rhetorical principles that underlie all writing. The author has tried several activities in her class to promote this idea: students analyze their own writing process; students interview writers in their field; students generate critique sheets and critique each other's work; and portfolios. The paper includes criteria students have developed to critique technical writing, and lots of help with implementing these ideas, including incorporating them into grading.

(AL# 470.6REVTEW)

Borko, Hilda, Paul Michalec, Maria Timmons, et al. ***Student-Teaching Portfolios: A Tool for Promoting Reflective Practice*****, 1996. Available from: Author, School of Education, Campus Box 249, University of Colorado, Boulder, CO 80309, (303) 492-8399, e-mail: hilda.borko@Colorado.edu**

This is a paper presented at the annual meeting of the American Educational Research Association, New York, April 1996. This article explores student-teaching portfolios as a tool for promoting reflective practice. The authors focus on the experiences of a group of pre-service teachers whose major assignment for the seminar was to construct a student-teaching portfolio. In interviews and written reflections, participants commented most frequently about benefits of the portfolio experience; for example, the opportunity to reflect on their teaching and students' learning. The most frequent message about costs was that the portfolio assignment competed with student teaching for their time and energy. Suggestions for modifying the portfolio project addressed ways to strengthen its positive features (e.g., peer collaboration, sample portfolios, professional value) and decrease the impact of negative features (e.g., timing, structure). The article concludes with a discussion of modifications we made to the portfolio project based on the authors' learnings and the student teachers' insights.

(AL# 130.4STUTEP)

Brandt, Mary E. ***When Are Writing Portfolios Powerful?*** **Located in: The Kamehameha Journal of Education 4, Spring 1993, pp. 97-104. Available from: Early Education Division, Kamehameha Schools, 1887 Makuakane St., Honolulu, HI 96817.**

The author presents the position that the real value of portfolios is in the service of student learning, and that if we are going to get the maximum benefit from portfolios, we should use them to do what only they are capable of doing in instruction—inviting in-depth student

reflection and involvement in the learning process. She feels that if we are going to keep portfolios from going down the path of other educational fads, we need to put learning first.

(AL# 470.6WHEWRP)

Brookhart, Susan M. *Student Annotation Form to Capture Reflections on Work Samples in Portfolios*, April 1996. Available from: School of Education, Duquesne University, Pittsburgh, PA 15282, (412) 396-5190, e-mail: BROOKHART@DUQ3.CC.DUQ.EDU.

The author reports on two studies designed to evaluate the reliability and validity of a simple portfolio entry coversheet for use in grades 1-10. She wanted to determine the extent to which student responses on the sheet (a) accurately reflect what students really think, and (b) can be used to look at student feelings of self-efficacy. Results looked promising. The coversheet is included. The paper itself is fairly technical.

(AL# 150.6STUANF)

Buell, Nancy. *An Overview of Six Portfolio Assessment Projects in the State of Alaska (or "At First They Thought It Was an Animal They Were Going to Feed")*, 1991. Available from: State of Alaska, Department of Education, 801 W. 10th St., Suite 200, Juneau, AK 99801, (907) 465-2821.

This report was commissioned by the state of Alaska to report on the work of six districts that received portfolio development grant money from the state.

The author interviewed project coordinators and at least one teacher from each site. Complete transcripts of the interviews are included. The author notes the following:

1. The major reasons cited by districts for developing portfolios are: (a) the desire to have better measures of the most important aspects of student performance in the areas of writing, reading, spelling, speaking and listening; (b) the desire to have students become partners in their learning; and (c) better communication with parents.

2. Parental reactions have been very positive and teachers felt increasing control over the processes of learning.

3. One of the biggest advantages in setting up a portfolio system is that teachers have the opportunity to discuss at length the achievement targets they have for students.

4. Teachers felt most comfortable with the systems that had specific criteria for selecting items for the portfolio and for evaluating the content.

The author also summarized emerging issues.

(AL# 150.6OVEOFS)

Burke, Kay, Robin Fogarty, and Susan Belgrad. *The Mindful School: The Portfolio Connection*, 1994. Available from: IRI/Skylight Training and Publishing, Inc., 2626 S. Clearbrook Dr., Arlington Heights, IL 60005, (800) 348-4474, (847) 290-6600, fax: (847) 290-6609, e-mail: irisky@xnet.com Internet: http://www.business1.com/iri_sky/

This book, intended for all grade levels, has lots of good ideas and a lot of help with implementing those ideas. It is especially helpful in:

- Student self-reflection
- Selecting portfolio content
- Conferences using portfolios

There is, however, no research cited. The sections on criteria and rubrics are somewhat skimpy.

(AL# 150.6PORCON)

Burnham, Chris. *Portfolio Evaluation: Room to Breathe and Grow.* Located in: C. Bridges (Ed.), Training the Teacher, 1986, pp. 125-138. Available from: NCTE, 1111 Kenyon Rd., Urbana, IL 61801, (217) 328-3870.

This paper describes a procedure for using portfolios to assess students in college composition classes. (It could also be adapted to high school.) The procedure encourages student self-evaluation—students choose samples of their own work to place in their portfolio. Although all papers are assessed, not all are graded. However, it also discusses how grading can be incorporated into the scheme (for example, students provide justification for a grade they request) and how to handle students that cannot function without papers being graded.

(AL# 470.3POREVR)

Burrack, Frederick. *Portfolio Assessment Samples*, 1995. Available from: Carroll High School, Music Department, 2809 N. Grant Rd., Carroll, IA 51401, (712) 792-8010.

This handbook contains sample portfolio materials in music from several classrooms. Included are grading schemes (percent awarded for various entries), sample student self-reflections, different forms for eliciting student self-reflection, criteria for judging such things as sight reading proficiency, and various student projects and portfolio entries. There is no text that explains the various parts of the handbook or provides contextual information. Therefore the handbook is best used by knowledgeable people looking for ideas.

(AL# 810.3PORASM)

Calfee, Robert C., and Pam Perfumo. ***Student Portfolios: Opportunities for a Revolution in Assessment.*** **Located in: Journal of Reading 36, April 1993, pp. 532-537.**

The authors report on a study of teachers to determine actual practice with respect to reading and writing portfolios. They surveyed 150 selected teachers, and held a two-day conference for 24 of them. Results showed that teachers:

1. Believe that they are more in charge of their instructional programs
2. Describe many benefits for students resulting from taking responsibility and selecting their own work
3. Do not attend to technical aspects of portfolios such as reliability and validity
4. Have no systematic way of analyzing, scoring, or grading portfolios

The authors are very optimistic about the possibility of portfolios reforming education.

(AL# 440.6STUPOO)

California Assessment Collaborative. ***Charting the Course Toward Instructionally Sound Assessment—A Report of the Alternative Assessment Pilot Project,*** **September 1993. Available from: California Assessment Collaborative, 730 Harrison St., San Francisco, CA 94107, (415) 241-2704.**

The California Assessment Collaborative was designed as a three-year effort to systematically identify, validate, and disseminate alternatives to standardized testing throughout the state. This report presents findings from the first year of work of 22 pilot projects. It also discusses their costs and impacts and uses them to make recommendations about future work. Some of the projects emphasize portfolios.

The book does an excellent job of placing assessment change into the context of restructuring. It discusses how the following fit together: articulating content standards, monitoring student progress toward goals, building teacher capacity to assess, building student capacity to self-assess, student outcomes, curriculum, and instruction.

(AL# 150.6CHACOU)

California Department of Education. ***California Learning Record—Handbook for Teachers, K-6,*** **and** ***Handbook for Teachers, 6-12, Preview Edition,*** **1993. Available from: UCSD Bookstore, University of California @ San Diego, 9500 Gilman Dr., La Jolla, CA 92093, (619) 534-4430.**

The *California Learning Record* (CLR) yields a portfolio of information about a student's annual language and literacy progress in K-12 classrooms. Progress is based on observation

and anecdotal records, and on consultations with parents and students themselves. As students mature, they take on responsibility for providing evidence of their learning. Pilot tested by California teachers since 1988, the CLR is an adaptation of the *Primary Language Record*, developed at the Centre for Language in Primary Education in London, England. A major California contribution is the extension of the record of achievement to middle and secondary schools, using the base of literacy development to support students' academic progress in all subject areas.

The *CLR Handbooks for Teachers, K-6* and *6-12* provide rationale, descriptions and examples of how the CLR works. Included with each handbook are master copies of the CLR forms, both the summary and the data collection forms. Not included are technical information nor criteria for judging student progress.

(AL# 400.3CALLER2)

California Department of Education. *Career-Technical Assessment Program (C-TAP)*, 1995. Available from: WestEd, 730 Harrison St., San Francisco, CA 94107, (415) 241-2711, fax (415) 241-2702.

The purpose of C-TAP is to design a performance-based student assessment and certification system for career-technical education programs offered in California high schools, adult education programs, and regional occupational centers/programs. The focus is on SCANS skills plus specific skills needed for various occupational clusters—readiness to be a worker in a particular cluster of careers.

There are five sections of the portfolio: (1) an introduction, (2) a career development package, (3) work samples, (4) a writing sample, and (5) a completed supervised practical experience (SPE) evaluation form. The career development package consists of a resume, an employment or college application, and a letter of recommendation. The work samples demonstrate mastery of important career technical skills and may be represented by actual products, photographs, videotapes, or written descriptions. To support integrated learning, work samples connect to other C-TAP components such as the assessment project or SPE. The writing sample focuses on a topic relevant to the student's program area.

Students are also required to complete an assessment project (mastery exhibit) during the course of their program. Students must plan, develop, and evaluate a major product related to their career interests. Project ideas are developed jointly by the student and teacher according to specific models provided for each occupational cluster. At the conclusion of the project, all students describe their learning experiences in an oral presentation.

This document includes student and teacher guidebooks that detail and illustrate possible portfolio entries and evaluation criteria. No technical information is included.

(AL# 223.3CARTEA3)

California Department of Education. ***Golden State Examination Science Portfolio—A Guide for Teachers and Students*****, 1994-95. Available from: California Department of Education, 721 Capital Mall, Sacramento, CA 94244, (916) 657-2451.**

The GSE science portfolio is an optional part of California's Golden State Examination, an assessment system designed to acknowledge student excellence by placing advanced academic endorsements on high school diplomas. Endorsements are available in science, social studies, and language arts. The Science Portfolio score is added to the scores on the other portions of the assessment system (multiple choice, short answer, essay, and laboratory) only if it improves overall performance.

The Science Portfolio is developed during a year of high school biology, chemistry, or integrated science and must include a self-generated problem-solving investigation; a creative expression (expressing a concept in science in an alternative way that enhances meaning, e.g., art, music, writing); and "learning through writing" (a series of pieces that demonstrates growth in the understanding of a science concept). Each of the three pieces includes a cover page that describes why the piece was chosen and requires students to self-reflect on the development process. Each of the three entries (together with the cover page) is scored holistically (one score) based on such things as conceptual understanding, group collaboration, and quality of communication. There is also a rubric for scoring the portfolio as a whole.

Some technical information is included. Contact the authors for samples of student work.

(AL# 600.3GOLSTE2)

Calkins, Annie. ***Language Arts Portfolio Handbooks—Primary Grades*** **(Third Edition, 1993) and Grades 3-5 (1995). Available from: Curriculum Dept., Juneau Borough Schools, 10014 Crazy Horse Dr., Juneau, AK 99801, (907) 463-1967, fax (907) 463-1712.**

The documents include:

- An introduction, including rationale and portfolio definition
- A description of portfolio content—student self-reflection, student and teacher selected samples of work and other performances (e.g., oral reading), teacher assessments using developmental continua to track student progress, and attitude surveys. Teachers are encouraged to also include anecdotal observations, oral language cassettes, developmental spelling lists, reading logs, and drawings/illustrations.
- Samples of all continuums, checklists, and rating forms—all rating scales emphasize analyzing the developmental stage of the student as a way of noting progress
- A survey of parental attitudes toward the portfolio project
- A letter to parents explaining the portfolio system

- A complete set of instructions for administering structured writing assessments
- A set of letters from first and second graders, describing what they learned in a year in school

(AL# 400.3JUNINL4) (1993 edition) (AL# 400.3LANARI) (1995 edition)

Campbell, Linda, Bruce Campbell, and Dee Dickinson. ***Teaching and Learning Through Multiple Intelligences*****, 1996. Available from: Allyn & Bacon, 111 Tenth St., Des Moines, IA 50309, (515) 284-6751, (800) 278-3525.**

This book describes Howard Gardner's "seven intelligences," provides checklists for identifying students' dominant intelligences and working styles, describes how to set-up a learning environment that stresses each intelligence, demonstrates instructing students through their strengths, provides instructional activities that foster the development of various intelligences, discusses designing assessments that allow different ways for students to demonstrate their achievement, and outlines the use of portfolios.

The section on assessment stresses the design of performance tasks to accommodate different intelligences. No performance criteria or technical information is provided. Some samples of student work are included.

(AL# 000.6TEAALE)

Carr, Barbara. ***Portfolios: A Mini-Guide.*** **Located in: School Arts 86, March 1987, pp. 55-56.**

This short paper provides help on how to begin art portfolios with students. Her suggestions include: work as a team, let students put in anything they want, revise the content on a regular basis, organize work into categories, select the best work from each category and use it as a standard, show off both strengths and versatility, package it well.

(AL# 810.6PORFOL)

Case, Susan H. ***Will Mandating Portfolios Undermine Their Value?*** **Located in: Educational Leadership, October 1994, pp. 46-47.**

The author discusses whether the use of portfolios for external accountability will interfere with their use as instructional tools in the classroom.

(AL# 150.6WILMAP)

Cerbin, William. ***Connecting Assessment of Learning to Improvement of Teaching Through the Course Portfolio.*** **Located in: Assessment Update 7, January-February 1995, pp. 4-6.**

The author describes a "course portfolio"—a mechanism for reflecting on the effectiveness of various instructional activities and techniques. He recommends the following content:

- *Teaching statement*—how and why the teacher uses particular teaching practices and learning activities to accomplish the aims of the course.
- *Analyses of student learning*—analyses of student performance on several activities to provide insights into the relationships between classroom practices and student outcomes.
- *Analyses of student feedback*—feedback that focuses on how teaching facilitated or interfered with students' progress toward course goals.
- *Course summary*—the extent to which the teacher's goals are realized, how well students learned, what they thought of their experiences, and so on. In it the teacher draws conclusions about what worked, what did not work as well as intended, and how course dilemmas might be addressed in the future.

The paper includes a detailed examples from the author's educational psychology course. He concludes:

> ...the course portfolio approach enables teachers to connect assessment of student learning to improvement of teaching. It is a way to represent the scholarship of teaching and also promote a view of teaching as scholarly inquiry. Finally, the course portfolio provides a vehicle for self-reflection and collective reflection on the ultimate aim of teaching—to enhance student learning.

(AL# 130.4CONASL)

Clarke, Judy. ***A Compelling Intersection of Curriculum and Assessment—Student-Led Parent Conferences.*** **Located in: ORBIT 26 (1), 1995. Available from: ORBIT, PO Box 10, Station F, Toronto, Ontario, M4Y 2L4, (416) 696-2295, fax (416) 696-2263.**

The author provides a compelling testimonial to the power of student-led parent conferences for her eighth-grade students. She describes the need for clear outcomes, student understanding and acceptance of the goals of their own education, criteria for quality, and student control. She also discusses portfolios as the vehicle by which students collect evidence of their own progress.

(AL# 150.6COMINC)

Clemmons, Joan, Lois Laase, DonnaLynn Cooper, et al. *Portfolios in the Classroom: A Teacher's Sourcebook*, 1993. Available from: Scholastic Professional Books, Scholastic Inc., 2931 E. McCarty St., Jefferson City, MO 65102.

This booklet describes one elementary school's portfolio system for documenting student growth in reading and writing. The system includes emphasis on student control, self evaluation, and goal setting. The authors:

- articulate well that the goal of portfolios is to allow students to take control of learning
- describe the kinds of classrooms in which portfolios are most likely to be successful
- outline a step-by-step plan for getting started and involving parents
- describe a procedure for teaching self-evaluation and goals-setting skills
- help with student-teacher portfolio conferences
- include complete portfolios for a second- and fifth-grade student
- include an appendix of reproducible letters, questionnaires, forms, and charts

(AL# 400.3PORCLT)

Coalition of Essential Schools. [*Various Articles on Exhibitions of Mastery and Setting Standards*], 1982-1992. Available from: Coalition of Essential Schools, Brown University, Box 1969, One Davol Sq., Providence, RI 02912, (401) 863-3384.

Although not strictly about portfolios, this series of articles discusses performance assessment topics and goals for students that are relevant. The articles are: *Rethinking Standards*; *Performances and Exhibitions: The Demonstration of Mastery*; *Exhibitions: Facing Outward, Pointing Inward*; *Steps in Planning Backwards*; *Anatomy of an Exhibition*; and *The Process of Planning Backwards*.

These articles touch on the following topics: good assessment tasks to give students, the need for good performance criteria, the need to have clear targets for students that are then translated into instruction and assessment, definition and examples of performance assessment, brief descriptions of some cross-disciplinary tasks, the value in planning performance assessments, and the notion of planning backwards (creating a vision for a high school graduate, taking stock of current efforts to fulfill this vision, and then planning backward throughout K-12 to make sure that we are getting students ready from the start). No technical information nor performance criteria are included.

(AL# 150.6VARARD)

Coleman, Laurence J. ***Portfolio Assessment: A Key to Identifying Hidden Talents and Empowering Teachers of Young Children.*** **Located in: Gifted Child Quarterly 38, Spring 1994, pp. 65-69.**

The "Early Assessment for Exceptional Potential of Young Minority and/or Economically Disadvantaged Students" project trained teachers to use portfolios to assess exceptional potential in young students and to alter their instruction. Project participants first listed 18 primary identifiers of exceptional potential. These included such things as "exceptional memory, demands a reason for unexplained events, keen sense of humor," and "shows initiative."

These were then defined and illustrated with videotapes of children manifesting the behaviors. Teachers collected evidence of the identifiers from various sources—observations, home survey, etc. Teachers developed instructional "action plans" from the portfolios. Extensive training and support was provided for project teachers. The paper includes frank discussion of both the achievements and problems faced by the project.

(AL# 050.6PORASK)

College Board, The. ***Advanced Placement Course Description—Art (Studio Art, History of Art),*** **May 1996. Available from: Advanced Placement Program, PO Box 6670, Princeton, NJ 08541.**

Advanced Placement Studio Art is not based on a written examination; instead, students submit portfolios for evaluation at the end of the school year. Students select work for three portfolio sections: quality of work (10 actual work samples), 20 slides from the artist's area of concentration, and 34 slides showing breadth of work. There is a lot of guidance on assembling the portfolio, but only cursory attention to criteria for judging quality of submissions. No sample student work nor technical information is included.

(AL# 810.3ADVPLA)

Collins, Angelo and Thomas M. Dana. ***Using Portfolios with Middle Grades Students.*** **Located in: Middle School Journal, November 1993, pp. 14-19.**

The main focus of this paper is a portfolio system for middle school students to demonstrate their communication proficiency. Students choose evidence from any course but have to have at least one piece of writing, one audiotape of something spoken, and one visual piece. Students have mailboxes in their homerooms in which to place evidence. Students meet in teams every two to three weeks to review portfolio content. Portfolios are scored holistically for the quality of the evidence and self-reflection, but not for progress in communication.

There is lots of help with implementation but no sample student work nor technical information. The scoring guide is sketchy.

(AL# 000.3USIPOM)

Conley, David T. *Proficiency-Based Admission Standards*, January 8, 1995. Available from: PASS Project, Oregon State System of Higher Education, Office of Academic Affairs, PO Box 3175, Eugene, OR 97403, (503) 346-5799.

This paper describes the Oregon Board of Higher Education's new policy on admitting students by demonstration of competencies rather than just numbers of courses taken or GPA. Included is the rationale for the approach (including the incongruity between traditional college admissions procedures and the attempt by K-12 schools to restructure), a list of the competencies, ideas for assessment, ideas for how high schools might need to change in order to ensure students meet admissions standards, and commonly asked questions. Competencies include content standards for subject areas (science, math, etc.), as well as basic and process skills standards (writing, reading, critical thinking, etc.).

The paper addresses the concern by some parents and teachers that changes in K-12 education won't mean anything if students are still admitted to college using traditional methods. The authors point out that similar changes in college admissions policy are occurring in many places.

(AL# 150.6PROBAA)

Cooper, Winfield, and Jan Davies, (Eds). *Portfolio Assessment Clearinghouse Newsletter*, 1990 to 1996. Available from: San Dieguito Union High School District, 710 Encinitas Blvd., Encinitas, CA 92024, (619) 753-6491.

The Portfolio Assessment Clearinghouse published the *Portfolio News* quarterly from 1990-1995. Articles include descriptions of portfolio projects, statements concerning how and why portfolios could or should be used, reviews of literature, etc. Copies of the newsletter are included. The newsletter is no longer published.

(AL# 000.6SANDIP)

Council of Chief State School Officers. *The Collaborative Development of Science Assessments: The SCASS Experience*, June 1995. Available from: Rolf K. Blank, Director, Education Indicators Program, CCSSO/SEAC, One Massachusetts Ave. NW, Suite 700, Washington, DC 20001.

This document describes the efforts of a consortium of 14 states to development performance assessments in science for middle school students. The document discusses tasks but does not discuss how performance on these tasks is scored.

The document also discusses staff development and science portfolios, and includes surveys for students and teachers that ask about classroom structure, content, and approach (opportunity to learn). The portfolio (designed for grades 4, 8, and 10) contains four types of entries:

1. *Experimental research entry* that shows students (a) understand how scientists work, (b) understand and use the scientific method, and (c) use habits of mind similar to those of a scientist.

2. *Non-experimental research entry* that illustrates the kind of research citizens might do in investigating an issue of personal or societal significance and making a decision.

3. *Creative entry* that asks students to communicate a scientific concept using any creative mode of the student's choosing.

4. **Written entry** that is a critique or persuasive piece.

Additionally, students are asked to reflect on the work illustrated through the other four entries in the portfolio. Criteria were developed for the portfolios, but they are not included in this document.

(AL# 600.3COLDES)

Crowley, Mary L. *Student Mathematics Portfolio: More Than a Display Case.* Located in: The Mathematics Teacher 86, October 1993, pp. 544-547.

The author discusses the use of mathematics portfolios to document progress on the "big" NCTM outcomes—problem solving, valuing mathematics, developing mathematical confidence, communicating mathematically, and reasoning mathematically. She includes a fair amount of detail on a middle school example—sample letter to students outlining the task, a description of what students need to include and a hint of how content might be assessed. The portfolio is semi-structured—the teacher specifies categories of entries and the student selects which samples of work to include in each category. Students must also write explanations for their selections. A few samples of student work are included. Detailed performance criteria are not included.

(AL#500.3STUMAP)

Culham, Ruth E. ***Alternative Assessment: Portfolios from the Inside Out*****, 1996. Available from: Northwest Regional Educational Laboratory, 101 SW Main St., Suite 500, Portland, OR 97204, (503) 275-9500, fax: (503) 275-0450, e-mail: culhamr@nwrel.org**

You can't recommend that someone else (e.g., students) do a portfolio until you've tried one yourself. This paper describes how to create a continuing teacher portfolio as a means both to explore the portfolio process and to improve instruction by reflecting on past practice.

(AL# 130.4ALTASP)

Darling-Hammond, Linda, and Jacqueline Ancess. ***Graduation by Portfolio at Central Park East Secondary School*****, December 1994. Available from: The National Center for Restructuring Education, Schools, and Teaching (NCREST), Box 110, Teachers College, Columbia University, New York, NY 10027, fax: (212) 678-4170.**

The authors describe the philosophy behind their graduation portfolio, the skills and habits of mind that undergrid all aspects of education at Central Park East Secondary School (and are specifically demonstrated by the portfolios), the manner in which the school was restructured to support its goals for students, specific requirements of the portfolio, and sample portfolio entries.

The portfolio has 14 elements that involve demonstration of academic knowledge and skills (science, mathematics, social studies, etc.), but also things like research skills, community service, and ability to reason about social issues. Types of entries are specified, but students have much leeway in pursuing activities in their own way. Different parts of the portfolio are evaluated in various ways, including judgments of oral presentations, and written/visual products. Scoring guides emphasize understanding, connections, use of evidence, voice, and conventions.

The authors address important assessment balancing acts such as balancing "standards" against "standardization," balancing objectivity against subjectivity of judgments, and balancing efficiency against ideal practice.

(AL# 000.3GRAPOC)

Daws, Donald. ***Schoolwide Portfolios.*** **Located in: Student Portfolios, 1993, pp. 33-45. Available from: National Education Association (NEA) Professional Library, PO Box 509, West Haven, CT 06516, (800) 229-4200.**

This paper describes a cross-disciplinary portfolio system developed at an alternative high school. The paper: (1) includes a description of the steps the teachers went through to learn about and develop their system; (2) provides sound advice for portfolio implementors, (3) has complete statements of their definitions and rationale for portfolios, logistics, and the goals to be documented in the portfolio; (4) explains the necessity to treat portfolios as any other

change—it takes time, study, and attention to teachers' concerns; and (5) discusses some realizations about instruction and change that occurred as a result of the project.

Some interesting observations about the change process are:

- It seemed to help to separate portfolio logistics from the student goals to be assessed/enhanced through the portfolio. The author says, "...some people seemed to need an opportunity to develop and incorporate routines involved in the portfolio process before they felt able to address and coordinate portfolio use with the outcomes. In fact, having a portfolio process in place has made it easier for us to begin focusing on the essential outcomes."

- Teachers new to the idea of portfolios are often most interested in the impact on themselves. Teachers commonly asked questions like: "What will the portfolios look like?" "Where will they be stored?" and "Who will be responsible for selecting, filing, and sorting student work?" Only after systems are in place do teachers ask, "How will students benefit from portfolios?" The author notes that, "Until the personal concerns of the individuals affected by the change are addressed, little progress can be made on the educational issues."

- Begin the process by having a small group of committed people read and study the literature pertaining to portfolios. This group can then synthesize the information and make a presentation of its findings to the entire faculty.

- Be aware that starting an innovation like portfolios may bring into question other school practices, such as instructional methods and the departmentalization of the curriculum.

(AL# 000.3SCHWIP)

DeFabio, Roseanne. *Characteristics of Student Performance as Factors in Portfolio Assessment,* 1993. Available from: National Research Center on Literature Teaching and Learning, University at Albany, State University of New York, 1400 Washington Ave., Albany, NY 12222.

The author describes a framework for describing what students are able to do in the study of literature and what to look for in portfolios to assess student learning in literature. These could be considered criteria for assessing a literature portfolio. The factors are: range, flexibility, connections, conventions, and independence.

(AL# 400.3CHASTP)

DeFina, Allan A. *Portfolio Assessment: Getting Started*, 1992. Available from: Scholastic Professional Books, 730 Broadway, New York, NY 10003.

This short book does a good job of listing the decisions to be made when developing and using portfolios, but provides the most useful and practical help in the sample checklists and letters in the back.

(AL# 150.6PORASG)

Donaldson, Peter. *Critique: Teaching Students How To Evaluate*, 1991. Available from: Islander Middle School, Mercer Island School District, 4160 86th Ave. SE, Mercer Island, WA 98040, (206) 236-3400.

This middle-school teacher has turned all grading in his art classes over to his students. He has them develop their own criteria for both judging/critiquing the artwork itself and for judging the critique of the artwork. The document we have includes the teacher's rationale for this approach, the goals he has for students, a sample rating form used by students to critique each other's artwork, a sample rating form used by students to critique each other's critiques, a form for self-critique, and a philosophy statement from ARTS PROPEL.

Criteria for artwork are: accurately observed proportions, craftsmanship, composition, detail, accurate illusion of depth, and accurately observed shading. Criteria for the critique of the critique include thoroughness, specificity, and good organization. (In a private communication the teacher also noted these things for a critique of critique: thoroughness, accuracy, synthesis of ideas, details supporting points, and analysis of the work. For a self-critique he would also add self-revelation.)

(AL# 810.3CRITES)

Doolittle, Peter. *Teacher Portfolio Assessment.* Located in: Measurement Update 4, June 1994, pp. 5-6. Available from: ERIC Clearinghouse on Assessment and Evaluation, The Catholic University of America, Department of Education, O'Boyle Hall, Washington, DC 20064, (202) 319-5120.

This short article is a nice summary of considerations in developing a professional portfolio for teachers. The authors endorse a model described by the following quote: "Ideally, a teacher portfolio is a document created by the teacher that reveals, relates and describes the teacher's duties, expertise, and growth in teaching. Each assertion in the portfolio is then documented in an appendix or a reference to outside material, such as videotapes or lengthy interviews. The size of a portfolio varies, but it is typically two to ten pages, plus appendices."

(AL# 130.6TEAPOA)

Educational Testing Service. ***Capturing the Power of Classroom Assessment.*** **Located in: Focus 28, 1995. Available from: ETS, Mail Stop 16-D, Rosedale Rd., Princeton, NJ 08541.**

Even though the content of this pamphlet is a little more constrained than the title might imply, there is still useful content. There is a nice succinct statement of why classroom assessment is changing, and good descriptions of three classroom alternative assessments: kid watching, Arts PROPEL portfolios, and SEPIA science portfolios. This pamphlet might be useful for parent groups.

(AL# 150.6CAPPOC)

Elbow, Peter and Pat Belanoff. ***State University of New York, Stony Brook Portfolio Based Evaluation Program.*** **Located in: Connelly & Vilard (Eds.), New Methods in College Writing Programs, 1986, pp. 95-104. Available from: Modern Language Association of America, 10 Astor Pl., New York, NY 10003, (212) 475-9500.**

These two articles describe the use of writing portfolios to assess student competence at the SUNY-Stony Brook campus. Each student submits three self-selected, revised pieces and one in-class writing sample. The self-selected pieces include: (a) one narrative, descriptive, expressive or informal essay; (b) one academic essay; and (c) one analysis of another's essay. Each piece is accompanied by an explanation of what was to be accomplished by the piece, and a description of the process of writing the piece. All pieces are judged by teaching staff, but not the students' own teachers, as being pass or fail. A passing grade on the portfolio is a necessary but not sufficient condition to satisfy the writing requirement at the college. A dry run occurs at mid-semester so that students can see how they are doing. The documents also discuss the advantages and disadvantages of the process as well as what worked and what didn't work. The document is descriptive and does not include actual student work or rating forms.

(AL# 470.3STAUNO)

Elliott, Nikki, and Carol Harriman. ***Feasibility Study of the Use of Portfolios for Placement in English 001, 101, or 102 at the University of Nevada, Reno*****, 1990. Available from: Nevada State Department of Education, Capitol Complex, Carson City, NV 89710, (702) 687-3913.**

This document describes a pilot study to determine the feasibility of using high school writing portfolios to make better student placements in college English classes. The portfolios were compiled by 58 students in three college-bound English classrooms. Portfolio content included a student-chosen best piece and a previously graded piece that had been further revised. Students also wrote a third piece specifically for this portfolio (a journal entry taken through to a final draft), and a self-reflective letter to the readers that

included a discussion of oneself as a writer and a justification of the inclusion of each piece of writing.

Three university instructors read the portfolios (each portfolio was read twice) and rated them holistically on a scale of 1 to 5. Anchor portfolios for each of the five scale points were developed as part of this process and are included in this document. Placement decisions based on portfolios were compared traditional test scores. Test scores misplaced students 1/4 of the time.

(AL# 470.3FEASTO)

Ellsworth, Jill H. ***Assessment of Prior Learning Through Portfolio Development.*** **Located in: Adult Assessment Forum 2, Fall 1992, p. 8. Available from: AAF, PO Box 52069, Phoenix, AZ 85072.**

This brief article describes a project in which portfolios are used to document prior learning in adults to give alternative course credit for life experiences.

(AL# 150.6ASSPRL)

EQUALS Project. ***Assessment Alternatives in Mathematics,*** **1989. Available from: Lawrence Hall of Science, University of California, Berkeley, CA 94720, (510) 642-0738.**

This document provides an overview of some methods in mathematics to assess both student process skills and products. Specific examples are provided for writing in mathematics, mathematical investigations, open-ended questions, performance assessment, observations, interviews, and student self-assessment. Any of the student generated material could be self-selected for a portfolio of work. The paper also includes a discussion of assessment issues and a list of probing questions teachers can use during instruction.

(AL# 500.6ASSALI)

Erickson, Melinda. ***Developing Student Confidence to Evaluate Writing.*** **Located in: The Quarterly of the National Writing Project & the Center for the Study of Writing and Literacy 14, 1992, pp. 7-9.**

This article is more about setting up a classroom environment that supports peer review, risk-taking, and self-reflection than it is about portfolios. However, this environment is also important for successful implementation of a portfolio project.

(AL# 470.6DEVSTC)

Far West Laboratory for Educational Research and Development. ***Focus on Educational Resources, Spring 1995; Knowledge Brief, Number 12, 1995; Knowledge Brief, Number 11, 1993.*** **Available from: WestEd, 730 Harrison St., San Francisco, CA 94107, (415) 565-3000.**

This set of documents from 1993 to 1995 discusses the following topics:

- The ways in which assessments can mask the achievement of culturally diverse students instead of highlighting them
- The hopes and fears associated with the use of alternative assessments and culturally diverse students
- Examples of assessment tasks and their language demands which place extra constraints on ESL students
- Examples of how community members in Chinle, Arizona, modified assessment tasks to be more culturally relevant

(AL# 150.6ISSCRA)

Ferguson, Shelly. ***Zeroing in on Math Abilities.*** **Located in: Learning92 21, 1992, pp. 38-41.**

This paper was written by a fourth grade teacher and describes her use of portfolios in math—what she has students put in their portfolios, the role of self-reflection, getting parents involved, and grading. She gives lots of practical help. At the end of the grading period she reviews the portfolios for attainment of concepts taught (not amount of work done), and progress toward six goals set by the NCTM standards (e.g., thinks mathematically, communicates mathematically, and uses tools). She marks which goals were illustrated by the various pieces of work in the portfolio and writes a narrative to the student. Another interesting idea is formal presentations of their portfolios by students to their parents. The article provides a sample comment form for parents and students to complete. No technical information is included.

(AL# 500.3ZERMAA)

Ferrara, Steven, Gail Goldberg, and Jay McTighe. ***Ways in Which Teachers Communicate Learning Targets, Criteria, and Standards for Performance to Their Students.*** **Available from: Maryland Department of Education, Maryland School Performance Assessment Program, 200 W. Baltimore St., Baltimore, MD 21201, (410) 333-2000.**

The authors report on a study in which they examined the ways that "performance oriented" teachers communicate performance targets, criteria, and standards of quality to their students. About 90 Maryland teachers were sent a 21-item survey. The results showed that these

teachers (1) tend to rely more on telling rather than showing students what they should know and be able to do; (2) provide scoring tools (e.g., rubrics and checklists) to their students and help them apply these tools to evaluate their work; and (3) do not often involve students in developing these scoring tools or selecting anchor papers.

(AL# 150.6WAYWHT)

Fingeret, Hanna Arlene. *It Belongs To Me: A Guide to Portfolio Assessment in Adult Education Programs*, 1993. Available from: Literacy South, Snow Building, 331 W. Main St., Durham, NC 27701, (919) 682-8108.

This is a short paper on the use of portfolios in adult literacy programs. Although the paper states that it emphasizes portfolios to assess skill levels, actual steps for implementation also imply their use as an instructional tool. For example, the first step is "clarify your beliefs about literacy and their relationship to how you work with students." Some assistance with student self-reflection is also provided. Not included are samples of student work, criteria, or technical information.

(AL# 440.3ITBELM)

Flanagan, Anna. *Vermont Writing Portfolio Is Revised.* Located in: The Council Chronicle, April 1994, p. 2. Available from: National Council of Teachers of English, 1111 W. Kenyon Rd., Urbana, IL 61801.

This document is a newspaper article on the status of Vermont's writing portfolio in grades 4 and 8. It is based, in part, on a presentation by Geof Hewitt. The article addresses Vermont's attempts to improve the scoring reliability of it's portfolios. The major change is in the design of the scoring guide.

(AL# 470.3VERWRP2)

Flood, James and Diane Lapp. *Reporting Reading Progress: A Comparison Portfolio for Parents.* Located in: Reading Teacher, March 1989, pp. 508-514.

The authors describe the content of a reading portfolio designed to show student progress to parents. They suggest the portfolio contain test scores (norm-referenced and criterion-referenced), informal assessments (IRIs), samples of student writing at the beginning and end of the school year, student self-evaluations, and samples of the material students can read at the beginning and end of the school year. The article includes three-questions for students to promote self-analysis of reading processes, but does not include sample checklists or IRI's.

(AL# 400.3REPREP)

Forster, Margaret, and Geoff Masters. *Portfolios Assessment Resource Kit*, 1996. Available from: Australian Council for Educational Research, 19 Prospect Hill Rd., Camberwell, Victoria, Australia, 3124, (+613) 9277 5656, fax: (+613) 9277 5678.

The authors propose that all portfolios can be described along three dimensions: (1) purpose (formative assessment and diagnosis v. summarizing achievement at the end of instruction), (2) content (everything v. a small, select sample of work), and (c) who selects (student v. "external agency"). They give examples of what, in their opinion, are three basic portfolio systems that represent different combinations of these dimensions:

- "Working portfolios" are used to guide and track student learning (dimension a=formative; dimension b=middle) and therefore include lots of student control over content and self-assessment (dimension c=student).

- "Documentary portfolios" are used to showcase best examples of the processes by which students do work. (dimension a=middle; dimension b=small; dimension c=student and teacher).

- "Showcase portfolios" contain finished products of students' best work. (dimension a=summative; dimension b=small, select; dimension c=student and teacher).

There are good discussions of criteria and continuums for tracking student progress, lots of help for classroom teachers, and samples of work from portfolios. No classification scheme for portfolios is perfect—one can always find examples that don't fit neatly into the scheme. Use this classification scheme as a handy way to describe portfolio considerations; not as "the truth." No technical information is included.

(150.6PORASR)

Frazier, Darlene M. *Composite Portfolio In Special Education*, 1991. Available from: Leon Paulson, Multnomah Educational Service District, PO Box 301039, Portland, OR 97230, (503) 257-1774.

The author wanted to show growth in student writing as measured by the six-trait analytical model and improve students' self-assessment skills. The students selected a piece of writing for the portfolio each month. The selection included both the rough and final drafts, the student's ratings of his or her own work, and student self-analysis of their writing.

The teacher used these student work samples to analyze student progress, and herself wrote a self-reflection essay stating what she learned about student writing and the evidence from the samples to support these conclusions. The article includes both the self-selected samples of student work, and the criteria used to analyze the work.

(AL# 470.3COMPOI)

Frazier, Darlene and F. Leon Paulson. *Portfolio Assessment: Students Finding a Voice*, 1991. Available from: Multnomah Educational Service District, PO Box 301039, Portland, OR 97230, (503) 255-1841.

This is one special education teacher's story of developing a composite writing portfolio for 4th grade learning disabled students. As part of a class she was taking on portfolios, she asked her students to help her put together a portfolio by selecting their own work that would show what they are learning. Thus, the portfolio was to contain more than one students' work, and was to help the teacher self-reflect on herself as a teacher.

By midyear the students wanted their own portfolios. The teacher emphasizes the need for self-selection and self-evaluation to build ownership.

(AL# 470.3PORASF)

Fulton, Jill, and David Savaglio. *Performance-Based Assessment: Pomona's Three Approaches*, 1994. Available from: David Savaglio, Pomona Unified School District, 800 S. Garey Ave., Pomona, CA 91766

This document, from a conference presentation, includes a series of memos, agendas, and reports from Pomona's task forces on kindergarten assessment, portfolio assessment, and rubric training. As such, it is an interesting glimpse into the process (including starts, stops, and regrouping) that one district used for three years to get started on portfolios and rubrics. The document would be most useful to knowledgeable users who would like to see a case study. The only actual assessment material included is a short kindergarten skills rating form. Portfolio design information is not included.

(AL# 150.6PERBAA)

Gahagan, Hilary Sumner, Dewayne Smith, and Shelley King. *Project P.R.I.D.E.*, 1993. Available from: Beaverton School District, PO Box 200, Beaverton, OR 97075, (503) 591-8000, fax (503) 591-4415.

This document is a set of handouts from a conference presentation. They are very readable and present a good overview of Project P.R.I.D.E.—an inclusion program for special education students that utilizes language arts portfolios to document student progress and communication with parents. It also encourages students to take control of learning. The handouts include a description of the portfolio system, a form for student self-evaluation of their portfolios, a feedback questionnaire for parents, and daily schedules.

(AL# 400.3PROPRI)

Galbraith, Marian, John Hennelly, and Alan C. Purves. ***Using Portfolios to Negotiate a Rhetorical Community, Report Series 3.10,*** **1994. Available from: National Research Center on Literature Teaching and Learning, University at Albany, State University of New York, 1400 Washington Ave., Albany, NY 12222**

This article focuses on the procedures for enabling students to take responsibility for their own portfolios. The authors outline the following steps in the process:

1. Negotiate goals. For these authors a portfolio is the evidence for attainment of goals. The authors feel that a good way to encourage student responsibility for their portfolios is to have them take some responsibility for setting goals. The paper discusses a procedure for getting students to set meaningful goals.

2. Give students responsibility for putting work into portfolios—it is *their* record of learning. *And*, they have to learn how to make the choices based on non-superficial aspects of work. The authors suggest modeling the kinds of comments to make.

3. Give students time to self-reflect and assemble their portfolios.

4. Let students propose what grade they should get and support their judgment with evidence. Students build a case for a grade.

The authors see this as a whole process of weaning students from reliance on teachers. The paper includes lots of student and teacher reflections.

(AL# 000.6USIPON)

Gearhart, Maryl, and Joan L. Herman. ***Portfolio Assessment: Whose Work Is It?—Issues in the Use of Classroom Assignments for Accountability.*** **Located in: Evaluation Comment, Winter 1995, pp. 1-16. Available from: UCLA Center for the Study of Evaluation, 10880 Wilshire Blvd., Suite 700, Los Angeles, CA 90024, (310) 206-1532, e-mail Kim Hurst: kim@cse.ucla.edu**

The authors discuss several studies that provide evidence on the ability of classroom portfolios to accurately portray individual student achievement. They point out that the relationship between scores on portfolios and scores on on-demand performance assessments is low. This may be due to portfolios and on-demand assessments measuring different things. But, it also might be due to the nature of the work included in portfolios; portfolio content is more likely to represent an individual's work *assisted by others*. Therefore: (1) a portfolio might not be an adequate measure of an individual student's ability, and (2) it would be hard to compare students because the nature of group assistance is likely to be different in different classrooms.

There is nothing *wrong* about this, it is simply that if we want a measure of an individual student's ability *without help from others* we may need to:

- require certain "standard" pieces to be placed in portfolios
- make contents of portfolios more uniform
- make it clear which parts of each piece of work were the student's own
- score portfolios from individual classrooms together to determine the similarities between students in the same classroom
- use portfolios to assess mainly group process skills

(AL# 150.6PORASW)

Gearhart, Maryl, Joan Herman, Eva Baker, and Andrea Whittaker. *Writing Portfolios at the Elementary Level: A Study of Methods for Writing Assessment*, 1992. Available from: National Center for Research on Evaluation, Standards, and Student Testing, UCLA Graduate School of Education, 145 Moore Hall, 405 Hilgard Ave., Los Angeles, CA 90024, (310) 206-1532.

The authors reported on a study that addressed the following questions: (1) Can portfolios be scored reliability? (2) Are such judgments valid? (3) Are students scored comparably on their portfolios and other writing assessments? (4) How did raters feel about scoring portfolios?

Results showed that: (1) holistic ratings of portfolios and class work can be very reliable; (2) raters tended to rate the portfolio as a whole higher than the average of the scores on individual pieces of work in the portfolio (raising the possibility that additional factors are at work); (3) portfolio scoring has promise provided that teachers and students know the criteria so that they can select content. This report also provides the scoring guide (but no sample student work) that was used to score individual pieces of work and the portfolio as a whole.

(AL# 470.3WRIPOE)

Gentile, Claudia A., James Martin-Rehrmann, and John H. Kennedy. *Windows into the Classroom*, January 1995. Available from: Education Information Branch, Office of Educational Research and Improvement, US Department of Education, 555 New Jersey Ave, NW, Washington, DC 20208, (800) 424-1616, (202) 219-1651.

This report describes the classroom writing of American schoolchildren based on a survey conducted in 1992 by the National Assessment of Educational Progress (NAEP). It examines the types of writing students perform in school, the quality of their classroom writing, the relationship between their classroom writing and their performance on the NAEP writing assessment, and instructional factors related to portfolio performance.

To conduct this study, NAEP asked a nationally representative subgroup of the fourth and eighth graders who participated in the 1992 NAEP writing assessment to submit three pieces of writing from their Language Arts or English classes that represented their best writing efforts. Student papers were scored using holistic, primary trait rubrics. Results showed that:

- At both fourth and eighth grades, the majority of the students submitted narrative and/or informative writing.
- In general, students who spent more time on writing, in school and out of school, performed better on their portfolio writing. Also, students who were asked to write papers of medium and long lengths, at least once or twice a month, performed better than those who rarely or never did so.

The report includes rubrics, statistics, and samples of student work.

(AL# 470.6WINCLA)

Gitomer, Drew H., and Richard A. Duschl. *Moving Toward a Portfolio Culture in Science Education*, 1995. Available from: Center for Performance Assessment, Educational Testing Service, Mail Stop 11-P, Rosedale Rd., Princeton, NJ 08541, (609) 734-5521.

This paper describes the nature of changes occurring in middle school science classrooms—changes that affect teaching practices, curriculum, and learners themselves and describe the role of portfolios in this changing scheme. The authors briefly overview the reasons for the developing "portfolio culture" in the classroom. They then describe and illustrate central features of a portfolio culture by examining how these ideas look in a prototype curriculum unit. Finally, they reflect on progress to date, on future directions, and on recommendations and cautions to others contemplating involvement in portfolios. The paper includes an excellent section on the need for clear and public criteria for quality.

> The most important point we can make is that a successful science portfolio is not merely an interesting assessment technique that simply can be placed within a traditional science classroom. Instead, good portfolio practice requires fundamental changes in conceptions of science and science teaching, in ideas about learners and learning, and of course, in the practice and function of assessment. Taken together, these changes manifest themselves in a rethinking of the purpose and nature of curriculum, leading to what we have called a portfolio culture. A portfolio culture is a learning environment in which students are engaging in learning activities consistent with current psychological, philosophical, historical, and sociological conceptions of the growth of science knowledge. Teaching is organized to encourage conceptual change; learners are active constructors of meaning; and assessment is an invaluable tool that teachers as well as students use to help make instructional decisions.

(AL# 600.6MOVTOP)

Glazer, Susan Mandel and Carol Smullen Brown. ***Portfolios and Beyond: Collaborative Assessment in Reading and Writing, 1993.*** **Available from: Christopher-Gordon Publishers, Inc., 480 Washington St., Norwood, MA 02062, (617) 762-5577.**

The purpose of this book is to describe assessment procedures that support a more holistic approach to language arts instruction. Some good ideas include:

1. The type of classroom environment that is necessary to support this instructional model: a student-centered environment that allows students to read and write for real reasons, develop a community of learners, be comfortable taking risks, and share control of learning.

2. A self-assessment checklist for evaluating a "literacy environment" that focuses on supplies and room arrangement. It does not include instructional approaches, although there is a section on how to manage a "student-centered" classroom.

3. Information to help students self-reflect, self-assess, and control their own learning, including self-evaluation checklists and open-ended questions.

4. The need for ways to more formally summarize and report progress. There are chapters on writing and reading. The writing chapter has progress summary forms and developmental continuums; the reading chapters cover think-alouds and retelling. There is also help with what to look for in student responses. (This is frequently left out of whole-language books.)

5. Information to help interact with parents

6. Practical help with finding the time, storing work, etc.

Lots of student work is included. Technical information is not included.

(AL# 400.6PORBEY)

Gomez, M.L., and Janice Schenk. ***What Are Portfolios? Stories Teachers Tell,*** **1992. Available from: University of Wisconsin-Madison, Room 456-A, Teacher Education Building, 225 North Mills St., Madison, WI 53706, (608) 263-6527.**

The authors expand on the notion that portfolios tell a story. They present two case studies to illustrate the points that:

1. It is easy to unconsciously use the portfolio to justify decisions that we have already made about students rather than letting the true story emerge from the work.

2. Sometimes teachers do all the story-telling. It may be more useful to let all the main characters in the story (student, teacher, and family) tell the story.

(AL# 150.6WHAARP)

***Grady Profile Portfolio Assessment Product Version 2*, 1994. Available from: Aurbach & Associates, Inc., 9378 Olive Street Rd., Suite 102, St. Louis, MO 63132, (314) 432-7577, fax (314) 432-7072, e-mail: aurbach@aol.com**

This document contains demo materials for a software package that allows the user to collect, store and retrieve a variety of student products and information using a Mac Hypercard system. The document includes a rationale statement for portfolios, a description of the software product, and a demo disk that allows the user to see how the system works with one case example. The user still needs to plan what work will be collected and how to assess progress (although there do appear to be some checklists built into the system).

(AL# 150.6GRAPRO2)

Graves, Donald, and Bonnie Sunstein. *Portfolio Portraits*, 1992. Available from: Heinemann Educational Books, Inc., 361 Hanover St., Portsmouth, NH 03801, (603) 431-7894.

This book has three parts: descriptions of the portfolios kept in five different classrooms (grades 1, 5, 8, college sophomore, and master's candidate), papers on the politics of portfolios, and profiles of four portfolio keepers (school superintendent, college senior, grade 2 regular student, and grade 2 bilingual student).

The premise of the book is that portfolios are still too new in instruction to make definitive statements about what they are and what they can do. (And, especially too new for use in large-scale assessment.) Their approach is to provide examples of portfolio systems and case studies of portfolio keepers to assist the reader in seeing some of the possibilities. The author suggests seven principles to insure positive growth with respect to portfolios:

1. Involve the students.
2. Help staff keep their own portfolios.
3. Broaden the purpose of portfolios.
4. Keep instructional opportunities open.
5. Reexamine issues in comparability.
6. Study the effect of school policy on portfolio practice.
7. Enlist the ingenuity of teachers.

(AL# 150.6PORPOR)

Grosvenor, Laura. ***Taking Assessment Matters Into Our Own Hands.*** **Located in: Student Portfolios, 1993, pp. 9-17. Available from: National Education Association (NEA) Professional Library, PO Box 509, West Haven, CT 06516, (800) 229-4200.**

The author discusses a six-month pilot project in which a group of elementary school teachers developed and tried out a plan for literacy portfolios. In addition to good tips about how to organize an assessment study group, the author discusses the group's portfolio plan and emphasizes the link to instruction. She says, "One of the greatest changes that came about as a result of the use of portfolios and the exploration of alternative assessments was the realization that assessment is integrally tied to teaching strategies; and if our assessments change, so must our teaching."

(AL# 400.3TAKASI)

Gursky, Daniel. ***Maine's Portfolio-Based Recertification Process Overcomes Administrators' Initial Skepticism.*** **Located in: Education Week 11, May 20, 1992.**

This is a newspaper article that briefly describes Maine's portfolio-based recertification process for school administrators. Eighteen months before they are to be recertified, each administrator must develop a professional growth action plan based on a self-review of competency in 13 areas outlined by the state board of education. Compiling a portfolio is part of the self-review. The portfolio is also used to document growth toward the goals in the action plan. Recertification is tied to completion of the action plan. The article provides a few examples, gives some endorsements of the system by those having experienced it, and discusses some spin-offs.

(AL# 110.3MAIPOB)

Hackett, Rachelle Kisst. ***The Functions of Teacher-Student Portfolio Conferences Within an Assessment System,*** **1993. Available from: Rachelle Kisst Hackett, 1048 Walnut Ave., Fremont, CA 94536.**

In this paper, the author describes a study of what students experience as participants in a seventh grade math class where portfolios are used, and their impact on instruction. A major question was "what happens with students as they select and reflect on work." To answer these questions the author examined 45 student portfolios (work and self-reflections) and videotaped student-teacher conferences about them. Reflections were analyzed to see: (1) what students reported they learned, and (2) evidence of student engagement in the task. (The categories to describe student self-reflective comments may be of use to others.)

The author concludes that the self-reflection tasks, as used in these portfolios, were not really occasions for solidifying or promoting mathematical thinking and were not useful for analyzing what students have learned. However, the author did find that "simply having a portfolio over which the teacher and student could conference may lead to interaction that

could serve a variety of useful functions." These functions are described and samples of dialogues are included.

The author concludes that portfolios may not be useful as assessment documents for outside reviewers because they are not contextualized enough and because often what is known is not well represented in the portfolio. Interviews around the portfolio help supply this additional context and detail. [It also may be that students need more practice and help in "doing portfolios" so that the final product (as well as the process) is more useful as an assessment (and instruction) tool.]

(AL# 500.6FUNTES)

Hancock, Jane. *But...What About Grades?* Located in: Portfolio News 2, 1991, p. 3. Also available from: Portfolio Assessment Clearinghouse, San Dieguito Union High School District, 710 Encinitas Blvd., Encinitas, CA 92024; and Jane Hancock, Toll Junior High School, Glendale Unified School District, 700 Glenwood Rd., Glendale, CA 91202.

This is another article about how a ninth grade teacher uses portfolios to assign grades. Basically, no grades are assigned until the end of the term, and then students select the papers that will form the basis of their grades. However, there is extensive student/teacher interaction on all papers throughout the term.

(AL# 150.6BUTWHA)

Hansen, Jane. *Literacy Portfolios Emerge.* Located in: The Reading Teacher 45, April 1992, pp. 604-607.

The author describes a sixth grade teacher's experience developing literacy portfolios with her students—the steps needed to build the competencies required by students to put together their own portfolios and the classroom environment needed to encourage true student portfolio development. Some of the skills she had students practice were: discussing books; describing the reasons for the book choices they made; conducting a discussion without a teacher present; and discussing what, in their reading, still confuses them. When students had the necessary skills, they were introduced to the concept of a "literacy portfolio" in which they show who they are as readers. This later built into "who the student wants to be as a reader," which required additional skills in self-reflection and development of criteria.

(AL# 440.6LITPOE)

Hansen, Jane. ***Literacy Portfolios: Helping Students Know Themselves.*** **Located in: Educational Leadership 49, 1992, pp. 66-68. Also available from: University of New Hampshire, Morrill Hall, Curham, NH 03825.**

This short article provides a good idea of what a literacy portfolio is and the positive effects the process can have on students. The author describes a K-12 project in which students are completely in control of what goes in their portfolios, and any rationale is accepted at face value. The idea is to build self esteem and to help students get to know who they are as readers. Items from outside of school are encouraged. There is also some help in the article with how to get started and how to promote self reflection. There is no discussion of criteria, but there are some examples of what students placed in their portfolios and why.

(AL# 400.3LITPOH)

Hebert, E.A. ***Portfolios Invite Reflection—From Students and Staff.*** **Located in: Educational Leadership 49, 1992, pp. 58-61. Also available from: Crow Island School, 1112 Willow Rd., Winnetka, IL 60093.**

The author briefly describes a portfolio project and alternative progress reporting strategy used in Crow Island School for grades K-8. Interesting aspects of this project include: the cooperative learning approach undertaken by the staff; the fact that the process of examination of values became at least as valuable as having the new assessment systems in place; encouragement of student self-reflection in several ways including "Portfolio Evenings" with parents; and the addition of a personal reflection in their reporting form to parents. There is no mention of criteria for assessing progress and no samples of student work.

(AL# 000.3PORINR)

Herman, Joan L. and Lynn Winters. ***Portfolio Research: A Slim Collection.*** **Located in: Educational Leadership, October 1994, pp. 48-55.**

The author discusses portfolios from a technical viewpoint—does one need to be careful about using portfolios to make judgments of student achievement? What could cause us to make incorrect judgments? They discuss reliability, validity and feasibility in a fairly accessible manner. They also point out, as the title suggests, that there needs to be more work done before portfolios are used to make high-stakes decisions about individual students.

(AL# 150.6PORRES)

Herter, Roberta. ***Writing Portfolios: Alternatives to Testing.*** **Located in: English Journal, January 1991, pp. 90-91.**

This short article relates one teacher's observations of the positive effect that using portfolios has had on her grade 11 students. These positive effects have included: students taking responsibility for learning, increasing insight, becoming a community of writers, collaborating and cooperating, seeing themselves as writers, and developing and using criteria to critique writing. The article emphasizes the central importance of self-reflection.

(AL# 470.6WRTPOA)

Hessler, Arthur C., and Susan Kuntz. ***Student Portfolios: Effective Academic Advising Tools.*** **Located in: Assessment Update—Progress, Trends, and Practices in Higher Education 4, November-December 1992, pp. 6-8, 9. Also available from: Saint Michael's College, Colchester, VT 05449.**

The authors report on a study to learn about the effects of basing first-year high school student advising on portfolios of student work gathered by students across classes. Specific questions included whether students felt they obtained better advising, and whether advisers felt they were better able to provide academic advice.

Students were asked to keep the following information in their portfolios: a values/goals questionnaire, a scored writing sample and content assessments taken by all first-year students at the beginning of the fall semester, and examples of papers (drafts, laboratory reports, examinations, etc.) as they were accumulated from courses. At the end of the year, a written self-assessment of academic and co-curricular experiences was added. Students using portfolios rated their advisers as being significantly more helpful than did students not using portfolios. Advisors also felt that they were able to give students better advice when they had portfolios to look at.

(AL# 223.3STUPOE)

Hetterscheidt, Judy, Lynn Pott, Kenneth Russell, et al. ***Using the Computer as a Reading Portfolio.*** **Located in: Educational Leadership 49, 1992, p. 73. Also available from: Bellerive School, 666 Rue De Fleur, Creve Coeur, MO 63141.**

The authors briefly describe their use of a commercially available Macintosh Hypercard system that allows their fifth grade students to scan writing, record themselves reading and giving self-evaluations, and keep track of comments and other notes. The emphasis is on recording progress and allowing for self reflection—samples are entered at various regular times during the school year.

(AL# 400.3USICOR)

Hewitt, Geof. *A Portfolio Primer—Teaching, Collecting, and Assessing Student Writing*, 1995. Available from: Heinemann, 361 Hanover St., Portsmouth, NH 03801.

The author is one of the original designers of Vermont's grade 4 and 8 writing portfolio system. This book, although using vocabulary and ideas from the Vermont system, adds much more philosophy behind portfolios, the role of students as having primary responsibility for their portfolios, and various types of portfolios. The book includes lots of vignettes, a couple of student portfolios, an updated version of Vermont's writing rubric, and help with large-scale assessment. This book is worth reading.

(AL# 470.6PORPRI)

Hill, Bonnie C., Patricia Kamber, and Lisa Norwick. *Six Ways to Make Student Portfolios More Meaningful and Manageable.* Located in: Instructor, July/August 1994, pp. 118-121.

The authors discuss strategies for a successful portfolio project:

- Define the portfolio's purpose
- Teach students to self-reflect
- Discuss portfolio's content with students on a regular basis (e.g., 10 minutes/week)
- Have regular "portfolio swaps" among students
- Regularly share portfolios with parents
- Give yourself time

The authors include questions to promote student self-reflection.

(AL# 150.6WAYMAS)

Hill, Bonnie Campbell and Cynthia A. Ruptic. *Practical Aspects of Authentic Assessment—Putting the Pieces Together*, 1994. Available from: Christopher-Gordon Publishers, Inc., 480 Washington St., Norwood, MA 02062, (617) 762-5577).

The authors discuss how to assess reading, writing, the content areas, and student attitudes using portfolios, anecdotal records, classroom observations, checklists, conference records, and developmental continuums. The book mentions involving parents, student self-reflection, reporting, and special students in the assessment process.

Checklists and developmental continuums are included for reading and writing. Some sample student work is included, but technical information is not. The information appears to be most appropriate for grades K-8.

(AL# 000.6PRAASA)

Horn, Kermit, and Marilyn Olson. ***1992-1993 Lane County Fourth Annual Project Fair. Official Guidelines, Criteria & Registration Forms for Grades K-12.*** **Available from: Kermit Horn or Marilyn Olson, Project Fair Coordinators, Instructional Services Division, Lane Education Service District, PO Box 2680, Eugene, OR 97402, (503) 689-6500.**

This document is the handbook given to students in grades K-12 interested in registering for the Lane County project fair. It contains information on registration, criteria by which projects will be judged, and help with getting started. The document also gives some excellent ideas on interdisciplinary projects. No samples that illustrate score points on criteria are included and the criteria themselves, although an excellent start, are still a little sketchy.

(AL# 000.3LANCOP)

Howard, Kathryn. ***Making the Writing Portfolio Real.*** **Located in: <u>The Quarterly of the National Writing Project</u> 27, Spring 1990, pp. 4-7. Also available from: The Center For The Study of Writing, 5513 Tolman Hall, School of Education University of California, Berkeley, CA 94720, (415) 643-7022.**

The author was involved in developing a portfolio process with the goal of reflecting students' views of themselves as writers. The steps in this process included:

1. Establishing a climate in which students could freely express their feelings about their own writing and that of others. This entailed the oral sharing of writing, with question content, tone of voice and question phrasing initially modeled by the teacher. This developed not only an atmosphere of acceptance but also increasing depth in the analysis of each other's work.

2. Asking students for written self-reflections. Students were asked to: discuss one thing that is done well and one thing that needs to be improved in their writing. Student responses were initially superficial, but gained depth with modeling and feedback.

3. Asking students to choose, from their work folders, the writing that was of most "importance" to them and answer several questions about this writing—(a) Why did you select this piece of work? (b) What was particularly important to you during the process of writing this piece? (c) If you could go on working on this piece, what would you do? and (d) What kind of writing would you like to do in the future?

4. Having students choose both a satisfactory and an unsatisfactory piece of writing and analyzing the differences. A list of suggested questions is included.

5. Having students finalize their portfolios for the year by reconsidering previous choices.

This process resulted in increasing students' ownership of their work and relying on themselves and peers for assistance in improving their work.

(AL# 470.6MAKTHW)

Hunt, Rhonda, and Jill Harper. *Student Metacognitive Training, Developing Student and Teacher Evaluation Criteria—Language Arts Portfolio Assessment*, 1995. Available from: Douglas County School District, 1419 NW Valley View Dr., Roseburg, OR 97470, (503) 440-4015, fax (503) 440-4003.

This document is a set of handouts from a conference presentation. Although it's not always clear how the material links together, there are enough items of interest to include on the bibliography. First, the project is designed for young students and includes portfolios, writing assessment, and systems helping students to develop and use criteria. Samples of student writing are included as are samples of criteria for writing development by grade 1 students. Second, student self-review rating forms are included for writing, math, cooperative working, reading, verbal communication, global citizenship and life-long learning.

This document will *not* provide an overview of portfolios, help with implementation, or provide a detailed description of a sample system. However, it will provide information to knowledgeable users who are looking for the specific elements listed above.

(AL# 470.3STUMET)

Illinois State Board of Education. *Effective Scoring Rubrics—A Guide to Their Development and Use*, 1995. Available from: Illinois State Board of Education, Dept. of School Improvement Services, School and Student Assessment Section, 100 N. First St., Springfield, IL 62777, (217) 782-4823, fax (217) 784-6125.

This short booklet provides a good overview of the characteristics of sound performance criteria (rubrics, scoring guides) and uses Illinois' writing and math rubrics as examples. The author values analytic/holistic, developmental, generalizable rubrics for the classroom.

(AL# 150.6EFFSCR)

Ingalls, Bob, and Joyce Jones. ***There's a Lot of Things You Learn in English That You Really Can't See.*** **Located in: The Quarterly of the National Writing Project & The Center for the Study of Writing and Literacy 14, 1992, pp. 1-4.**

The authors describe a project in which teachers attempted to formally "score" a sample of portfolios. They found it unsatisfying because of lack of knowledge of the context under which the work was produced; it was hard to know the significance of the items they saw. When they added students to the review and discussion process, it not only added context, but resulted in a community of learners—everyone learning from each other. This points up: (1) the need for rationale and/or context statements in order to understand the content of portfolios, and (2) the usefulness of reviews to promote student self-reflection.

(AL# 470.3THELOT)

Johns, Jerry, and Peggy VanLeirsburg. ***Portfolio Assessment: A Survey Among Professionals*****, 1990. Available from: Northern Illinois University, Literacy Research Report No. 1, Reading Clinic, 119 Graham, DeKalb, IL 60115, (815) 753-1416.**

The authors surveyed 128 teachers concerning their knowledge about and views toward literacy portfolios. The survey has four sections—self-rating of knowledge of the portfolio concept; rating the importance of including various types of items in a literacy portfolio (such as "audio tapes" or "student self-evaluations"); amount of agreement with four statements of rationale for portfolios (such as "authenticity" or "continuous and ongoing"); and rating the degree to which various practical problems (such as "managing content") were of concern.

Results showed that teachers feel they know very little about portfolios. Teachers, however, agree with the theoretical bases of portfolio assessment. Teachers also have a lot of practical concerns about implementing portfolios, and there is some disagreement about what should be kept in a literacy portfolio. The survey does not include teacher knowledge about the possible technical limitations of using portfolios for assessment. Although the survey instrument is not included, it could be reconstructed from the various tables in the report.

(AL# 130.4PORASA)

Johnson, Bil. ***The Performance Assessment Handbook—Volume 1-Portfolios and Socratic Seminars*****, 1996. Available from: Eye on Education, PO Box 3113, Princeton, NJ 08543, (609) 395-0005, fax (609) 395-1180.**

This is a nicely written and well thought-out book based on the premises that:

- Assessment, to be powerful, should be used as a tool for learning and not just a tool for gathering numbers on students, or for grading.

- If teachers are not the central players in assessment reform, there is no chance that the movement will impact student achievement.

The book provides a sound overview of considerations in planning and using portfolios and Socratic seminars, provides lots of works in progress from around the country, and has a good discussion of criteria and rubrics. It also begins with an examination of five assumptions that frequently get in the way of change. Specific examples are included; technical information is not. It is intended for secondary teachers.

(AL# 150.6PERASH1)

Kekic, Terry. *Assessing A Teleproductions Course.* Located in: Student Portfolios, 1993, pp. 77-87. Available from: National Education Association (NEA) Professional Library, PO Box 509, West Haven, CT 06516, (800) 229-4200.

The author teaches video production at the high school level. The paper describes his experiences setting up a course that has to respond to real-life requests for service—videotaping classes, video yearbook, etc. The author's current plan consists of having students bid on jobs, develop quality control checklists, self-evaluate each job, and produce video portfolios in which students keep track of their work. The body of work as a whole is the basis for a grade.

(AL# 800.3ASSTEC)

Khattri, Nidhi. *Performance Assessments: Observed Impacts on Teaching and Learning*, 1995. Available from: Pelavin Associates, 2030 M St. NW, No. 800, Washington, DC 20036.

The author attempted to document the impact of performance assessment on teaching and learning. The author visited 14 schools in fall 1994 and spring 1995 to examine student work, observe in classrooms, and interview school personnel, students, and parents.

> The two strongest conclusions to be drawn from these findings are that: (1) students are being asked to write, to do project-based assignments, and to engage in group learning due to the use of performance assessments; and (2) as a result of project-based assignments, students are more motivated to learn. Furthermore, because of the use of performance-based assignments and the degree of freedom accorded to students in shaping their own work, teacher/teacher, teacher/student, and student/student collaboration also is evident. Increasingly, teachers are viewing students as active learners.
>
> All of the observed and reported effects, it must be emphasized, were mediated to a large degree by: (a) the form of the assessment (e.g., portfolio or performance event); (b) the degree of integration of the assessment into the classroom; and (c) the level of support provided to incorporate the assessment into routine classroom activities.
>
> The positive and intended effects on pedagogy are most evident for sites engaged in portfolio assessments, mostly because the portfolio format provides teachers and students control over products coupled with a structure for documenting student work and student progress on an ongoing basis.

The author states: "Performance assessments, thus, remain a *lever* for reform, but what exactly is to be leveraged still remains to be defined."

(AL# 150.6PERASO)

Kimeldorf, Martin. *Creating Portfolios for Success in School, Work, and Life*, 1994. Available from: Free Spirit Publishing, 400 First Ave N., Suite 616, Minneapolis, MN 55401, (612) 338-2068, fax (612) 337-5050.

This book provides a nice blend of instructional and assessment uses for portfolios, with the primary emphasis on instruction and student self-control of learning. The exercises are designed to promote student self-reflection and critical thinking. The student book also helps students determine what an audience might want to see, consider various uses for portfolios, meet specific requirements for portfolios, and demonstrate employability skills.

(AL# 000.6CREPOS)

Kingore, Bertie. *Portfolios—Enriching and Assessing All Students; Identifying the Gifted Grades K-6*, 1993. Available from: Leadership Publishers Inc., PO Box 8358, Des Moines, IA 50301

This book presents the organizational procedures, values, and evaluation of *product* portfolios for *all* students, and extra materials and procedures for identifying gifted students. It focuses on grades K-6. It has a lot of good ideas, sample forms, letters to parents, help with student-led teacher-student conferences, and student-led parent conferences, and answers to commonly asked questions by teachers. The majority of the book is focused on using portfolios to identify gifted students. It emphasizes using "planned lessons" to identify giftedness as well as work samples chosen from regular classroom work. Planned lessons are on-demand performance assessments that consist of things like classifying objects, writing endings to stories, and problem solving with shapes. These are designed to elicit specific behaviors and characteristics of gifted students—advanced language, analytical thinking, sensitivity, humor, etc.

Although emphasizing the need for criteria for assessing portfolio work (by students themselves as well as teachers and others), the samples provided are a little skimpy. This document is best for knowledgeable users looking for ideas.

(AL# 050.3PORENA)

Knight, Pam. ***How I Use Portfolios in Mathematics.*** **Located in: Educational Leadership 49, 1992, pp. 71-72. Also available from: Twin Peaks Middle School, Poway Unified School District, 14012 Valley Springs Road, Poway, CA 92064.**

The author describes her first year experimentation with portfolios in her algebra classes. She had her students keep all their work for a period of time and then sort through it to pick entries that would best show their effort and learning in algebra and the activities that had been the most meaningful. There is some help with what she did to get started and discussion of the positive effects on students. There is some mention of performance criteria, but no elaboration.

(AL# 530.3HOWIUS)

Koretz, Daniel, Brian Stecher, Stephen Klein, et al. ***The Vermont Portfolio Assessment Program: Findings and Implications.*** **Located in: Educational Measurement: Issues and Practice 13, Fall 1994, pp. 5-16.**

The authors describe the Vermont portfolio assessment system, summarize key findings from a series of evaluations of the Vermont system, and discuss the implication of the findings for performance assessment in general.

Although somewhat technical, the paper clearly points out the reliability and validity concerns surrounding the use of portfolios for large-scale assessment, and the tensions between using portfolios for large-scale assessment and using portfolios for instructional improvement. In short, portfolios are not magic and they have to be thoughtfully implemented. The paper presents a very thoughtful discussion of the issues.

(AL# 000.6VERPOF)

Krest, Margie. ***Adapting The Portfolio To Meet Student Needs.*** **Located in: English Journal 79, 1990, pp. 29-34.**

This article was written by a high school writing teacher. It provides some hints and ideas for using and adapting portfolios based on several years of use in her own classrooms. Some of the ideas presented are:

1. She has students keep all their writing—drafts, revisions, prewriting material, suggestions from classmates, and final drafts. This allows for collaborative discussion of such things as how well the student can incorporate other people's suggestions into their work, and student willingness to take risks.

2. Not each piece of writing is graded. This encourages students to experiment. Grades are based on two scores—a portfolio score (reflecting the quantity of writing, and/or the amount of revision, risk taking and changing they did on all their papers), and a "paper grade" based on one to three final products (ones that have been conferred about, revised

and edited thoroughly). The weight of these two components toward the final grade depends on the level of students and what they are working on. Sometimes the weighting for the two parts is decided collaboratively with the students.

3. The frequency of assessment varies by grade and what is being worked on. For example, if the emphasis is on fluency, assessment might only occur after each quarter so that students have time to work at becoming more fluent.

4. Most writing is based on free choice. However, the author does require that all students do a minimum number of papers in various modes. The modes depend on the level of the student. For example, a college-bound student would be required to write a compare-contrast paper. These do not have to be among the papers that students choose to be graded.

5. The major goal is to encourage students to take responsibility for their writing as much as possible—what to write about, how much revision will be done, etc.

(AL# 470.6ADATHP)

Kuhns, Mary Lou. *Understanding Shakespeare Through a Multiple Intelligences Approach to Portfolios.* Located in: Portfolio News 7, Fall 1995, pp. 1, 6-8.

The author describes her use of multiple-intelligences portfolios in her high school Shakespeare classes. For each play students create a portfolio which contains:

- Director's journals (stresses verbal linguistic intelligence)
- Evaluation of an acting company performance (stresses verbal linguistic intelligence)
- A third verbal linguistic activity chosen from a list
- An intelligence component other than verbal-linguistic (e.g., dramatize the play, create costumes, write a musical score, create a set or props, etc.). Students choose a different intelligence each time.
- A reflective letter

The author describes the procedure in some detail and includes samples of student self-reflection and other work. Criteria for judging quality and technical information are not included. Although students can instruct the teacher on the areas in which they would like feedback, or teacher-developed checklists can be used. The procedures and tasks are excellent; development of criteria for quality work is needed.

The author's self-reflection: "With each reflective letter I learn *how* a student assimilated Shakespeare. I am equally confident that these students and others who design similar products will remember their Shakespeare readings....For me, the portfolios are three hundred

times more interesting to read than Cliff's Notes-type papers, which are readily accessible in files, notebooks, and on the Internet. I didn't want to set up an opportunity for my students to plagiarize or for me to be bored. I much prefer to monitor original student work that genuinely shows students interacting with the plays. And my students tell me that this approach shows that I 'really care about their learning because the system discourages plagiarism.'"

(AL# 400.3UNDSHT)

Lambdin, Diana V. and Vicki L. Walker. ***Planning for Classroom Portfolio Assessment.*** **Located in: Arithmetic Teacher, February 1994, pp. 318-324.**

The authors have their high school students assemble a "permanent portfolio" from a "working portfolio." The working portfolio is a place to store all potential permanent portfolio entries. All portfolios are stored in an easily accessible place in the classroom. The goals are to promote student self-assessment, improve communication with students and parents, and gain a broader picture of the student than available with traditional tests. The goal is not to assess student knowledge. In addition to student and peer evaluation of portfolio selections and the portfolio as a whole, the teacher has guidelines for grading. Grades are based on diversity of selection, written reflections about selections, and portfolio organization. The authors present a little detail that flesh out these criteria. The document includes some student work but no technical information.

(AL# 500.3PLAPOA)

Lavaroni, Charles. ***Self-Evaluation: A Learned Process.*** **Located in: Inquiry: Critical Thinking Across the Disciplines 14, Autumn 1994, pp. 52-57.**

This short article presents a list of indicators of students' ability to self-evaluate and think about their own thinking. The author also mentions the need to use portfolios to build such skills.

(AL# 050.5SELFEV)

Lazear, David. ***Multiple Intelligence Approaches to Assessment—Solving the Assessment Conundrum*****, 1994. Available from: Zephyr Press, PO Box 66006-W, Tucson, AZ 85728, (602) 322-5090, fax: (602) 323-9402.**

This manual discusses:

- Definitions and importance of seven student "intelligences."
- How to "kid watch" to determine which intelligences each student has strengths in.

- Ideas for using the "intelligences" profile to help kids get the most out of instruction.
- Ideas for developing students' weaker "intelligences."
- Criteria for sound assessment that include attention to both (a) assessing the seven intelligences, and (b) designing a variety of achievement measures that honor all of the seven intelligences.
- Lots of help on designing assessments in various content areas that capitalize on strengths in the various intelligences and allow students to show what they know in a variety of ways.
- The use of portfolios, journals, anecdotal records, and exhibits in the context of the seven intelligences.
- Ideas for getting started.
- Sample reporting formats that emphasize both development in the seven intelligences and development in the skills and knowledge through the seven intelligences.

I like the detail, specific examples, and easy readability of this one. There were lots of good ideas. Some readers might be put off by the seeming emphasis that developing the seven intelligences should be the *goal* of instruction rather than just the *means* of instruction and assessment. If the reader keeps the emphasis on using the "seven intelligences" as a way to tailor instruction and assessment for individual students, there is much here to use.

(AL# 000.6MULINA)

Lee, Joyce. *Suggested Framework for Establishing a K-2 Portfolio Assessment System in the State College Area School District*, 1992. Available from: Central Intermediate Unit, Rd #1, Box 374, West Decatur, PA 16878, (814) 342-0884.

This document summarizes the first year of a K-2 portfolio project. It includes some general help on how to begin, how to get parents involved, and how to prune the portfolio for use by subsequent teachers. Two types of portfolios are being explored: working portfolios (less structured, child owned), and curriculum portfolios (more structured to track progress across time).

(AL# 070.3SUGFRE)

LeMahieu, Paul. ***Writing Portfolio; Current Working Model*****, 1991. Available from: Pittsburgh Public Schools, Division of Writing & Speaking, 341 S. Bellefield Ave., Pittsburgh, PA 15213, (412) 622-3500, fax: (412) 622-8578.**

This package contains handouts about the PROPEL project, which has ended. The handouts were used for a presentation by Paul LeMahieu and Dennie Wolf at the *ASCD Consortium on Expanded Assessment* meeting, November 5-6, 1991 in San Diego. Included are forms, instructions, a philosophy statement, and help with building a portfolio culture in the classroom. For example:

- A form for students to fill out that becomes the table of contents for the portfolio
- A form for students to fill out that becomes the explanation of why each piece was chosen for the portfolio
- A list of clues for knowing when students are ready to do portfolios
- Questions to prompt student self-reflection on writing
- Instructions to students on how to review and update their portfolios
- A form for parents to use to review their child's portfolio
- A form for students to use to respond to their parents' review
- A framework for evaluating the portfolio as a whole

(AL# 470.3WRIPOC)

LeMahieu, Paul G., Joanne T. Eresh and Richard C. Wallace, Jr. ***Using Student Portfolios for a Public Accounting.*** **Located in: <u>The School Administrator</u> 49, December 1992, pp. 8-15.**

This article is a very readable summary of the philosophy, approach, and assessment procedures for PROPEL, a portfolio project in art, music and writing begun in 1987. The majority of the article is on student portfolios being used for public accounting, including the idea of "audits" of portfolios by members of the community in order to "validate" the conclusions drawn by staff review of portfolios.

(AL# 000.6USISTP)

LeMahieu, Paul G., Drew H. Gitomer, and JoAnne T. Eresh. *Portfolios Beyond the Classroom: Data Quality and Qualities*, 1995. Available from: Center for Performance Assessment, Educational Testing Service, Mail Stop 11-P, Rosedale Rd., Princeton, NJ 08541, (609) 734-5521.

The authors addressed the issue of what it would take to be able to use portfolios for public accountability that students are learning. From the study described in the reports, the authors conclude, "...contrary to some findings and interpretations of previous efforts, portfolio assessment can have sufficient psychometric integrity to support purposes of public accounting." However, to make it work, there needs to be:

1. A clear purpose so that the system can be designed to fulfill that purpose.
2. A shared vision of the characteristics of quality student work, carefully developed through in-depth discussions of such work.
3. Compatibility between large-scale uses and classroom uses.
4. An equal emphasis on technical quality and practicality.

No samples of student work or criteria by which portfolios might be judged are included. Rather, this was a feasibility study.

(AL# 150.6PORBEC)

LeMahieu, Paul G., Drew H. Gitomer, and JoAnne T. Eresh. *Portfolios in Large-Scale Assessment: Difficult But Not Impossible.* Located in: Educational Measurement: Issues and Practice 14, Fall 1995, pp. 11-16, 25-28.

The authors report on a study of grade 6-12 writing portfolios for language arts assessment that shows good technical quality and discusses what features made it successful. They believe that technical quality improves when:

1. Scoring rubrics are developed by looking at a large number of student essays of all types.
2. A shared understanding of the rubric by raters and practice, discussion, and use in the classroom.
3. It is generalizable to *all* portfolios and raters are *taught* to generalize.

(AL# 150.6PORLAS)

Levi, Ray. *Assessment and Educational Vision: Engaging Learners and Parents.* Located in: Language Arts 67, 1990, pp. 269-273.

This paper provides the rationale for and practical help with setting up an environment that encourages self-reflection by young students. It provides a beautiful example of how first grade students can self-reflect and trace their own progress. It also provides ideas for involving parents in reviewing progress and contributing observations.

(AL# 400.6ASSEDV)

Lewis, Jack L., Deanna D. Spring, Julie A. Quatman, et al. *Applying Performance Assessment Results to Student Promotion Decisions*, 1996. Available from: Cincinnati Public Schools, Education Center, PO Box 5381, Cincinnati, OH 45201, (513) 475-7000.

Paper presented at the 1996 annual meeting of the American Educational Research Association.

The authors report on the first evaluation results (to be continued for the next three years) of an assessment system used to promote students in grades 3, 6, and 8. The promotion decision is made by classroom teachers who observe student performance and rate it using four-point rubrics. There are various rules for combining ratings in order to come to a final decision on promotion. One part of this system involves writing portfolios. Results showed that:

- The use of student performance ratings using a single set of prescribed performance standards has resulted in lower student promotion rates.
- Teacher ratings are not completely "standards" based. Rather, teachers also take into account other things, such as prior ability, when rating student performance.
- The accuracy of teacher ratings on the writing portfolio was low when compared with ratings by "experts." This indicated that much additional teacher training is needed to insure that teacher ratings are valid for use as the basis for a promotion decision.

The paper does not include the actual rubrics used and there are no samples of student work.

(AL# 470.6APPPEA)

Little, Nancy, and John Allan. *Student-Led Teacher Parent Conferences*, 1988. Available from: Lugus Productions Limited, 48 Falcon St., Toronto, ON M4S 2P5, Canada, (416) 322-5113.

This monograph describes the rationale and procedures for having students plan and lead parent conferences. One part of this process is the student preparation of portfolios (called work folders) to share with their parents. The students select the content, taking into consideration the purpose and audience. The students also determine what they want to

demonstrate to their parents. There is a set of prompts for this purpose: "While you look at my work with me, I want you to notice...""These are the things I think I do well..." The book contains a complete description of roles, responsibilities, and timelines for student-led parent conferences. It also has sample letters to parents and sample student attitude surveys.

(AL# 150.6STULET)

Macintosh, Henry G. *The Use of Portfolios in School-Based Assessment—Some Issues.* Source and date unknown.

The author discusses 12 key questions to be addressed when designing a portfolio system in order to ensure that portfolios link to instruction and provide adequate evidence of student progress toward valued outcomes. The 12 questions discussed in the paper are:

1. Why do we need to review pupil progress and achievements?
2. Who will benefit from the review?
3. What do I review?
4. How do we gather evidence?
5. What kinds of evidence can we gather?
6. What kinds of retainable evidence can we gather from everyday activities in the classroom?
7. How do I select, from the range of evidence, the significant highlights?
8. What do I do with the evidence to be placed in the portfolio?
9. What do I do with evidence that is not retainable?
10. What other information might be included in the portfolio?
11. How do I interpret the evidence in the portfolio? (preparing for the review)
12. How do I design portfolios?

These questions are based on the author's experience with portfolios in the United Kingdom. No technical information, samples of student work, nor discussion of criteria are included. However, the questions, which address portfolio content, are sound.

(AL# 150.6USEPOS)

Maier, Sondra. *Student-Led Portfolio Conferences*, 1993. Available from: Adelaide Elementary School, 1635 SW 304th St., Federal Way, WA 98023, (206) 927-3111.

This document contains handouts from a conference presentation. The handouts outline major points on the topics of: (1) advantages for students, teachers and parents in student-led parent conferences; and (2) implementation steps. Also included are sample letters to parents, conference agendas, parent and guest response forms, and student self-reflection forms.

(AL# 150.6STULEP)

Malarz, Lynn, Marcia D'Arcangelo, and Leslie Kiernan. *Redesigning Assessment: Portfolios*, 1992. Available from: Association for Supervision and Curriculum Development (ASCD), 1250 N. Pitt St., Alexandria, VA 22314, (703) 549-9110.

This 40-minute video and related manual is part of a series of training materials on alternative assessment produced by ASCD. The video shows a series of classroom activities centered around portfolios. These segments are chosen to illustrate what portfolios are, the various types of portfolios teachers are experimenting with, portfolio conferences, and the benefits to teachers and students of portfolios. The associated manual describes two uses for the video: a one-hour overview discussion of portfolios and a 3-1/2 hour workshop that addresses essential components of a portfolio, how teachers can implement portfolio assessment, how to sustain portfolios over time, how you can get started, etc. The video is excellent, except that there is little discussion of criteria.

(Note: This document is shelved under two different numbers—"t" refers to the written material, and "v" refers to the video.)

(AL# 150.6REDASOt and AL# 150.6REDASOv)

Martin-Kniep, Giselle O. *Teacher Change and the Assessment Process*, October 1996. Available from: Learner-Centered Initiatives, Ltd., 20 Elm Pl., Sea Cliff, NY 11579.

From her multi-year professional development activities in two school districts, the author analyzes detailed self-reflections from 19 teachers that outline their experiences and growth in student assessment. She notes six themes:

- Change in teachers' definition of their role as teachers
- Change in the role that students play in the classroom
- Greater teacher confidence and sophistication
- Increased awareness of the relationship among learner outcomes and indicators, assessment purposes, and learning and assessment tasks

- Greater awareness of complexity coupled with increased self-doubt
- Commitment to continued learning and inquiry

(AL# 130.4TEACHA)

Martin-Kniep, Giselle O. *Teachers as Learners in the Portfolio Design Process*, October 1996. Available from: Learner-Centered Initiatives, Ltd., 20 Elm Pl., Sea Cliff, NY 11579.

The author presents an outline for a teacher professional development portfolio she uses in her training programs. The most notable feature is detailed criteria for judging the portfolios. Rubrics are provided for:

1. Presentation of the portfolio
2. Teacher as learner
3. Teacher as assessor and curriculum developer
4. Teacher as researcher
5. Teacher as staff developer

No sample teacher portfolios nor technical information is included. A personal communication indicated that the rubrics are under revision.

(AL# 130.4TEALEP)

Masters, Geoff, and Margaret Forster. *Developmental Assessment—Assessment Resource Kit*, 1996. Available from: Australian Council for Educational Research, 19 Prospect Hill Rd., Camberwell, Victoria 3124, Australia, phone: +613 9277 5656, fax: +613 9277 5678

This excellent publication clearly defines "developmental assessment" and systematically describes how to do it. "Developmental assessment is the process of monitoring a student's progress through an area of learning so that decisions can be made about the best ways to facilitate further learning. The unique feature of developmental assessment is its use of a progress map (or 'continuum'). A progress map describes the nature of development—or progress or growth—in an area of learning and so provides a frame of reference for monitoring individual development." The steps in "doing" developmental assessment are:

1. Construct a progress map (developmental continuum)
2. Collect evidence

3. Use the evidence to draw a conclusion about student development

Many examples are provided. No technical information is included.

(AL# 000.6DEVASA)

McClure, Robert M., Joseph Walters, Lisa Bietau, et al. *None of Us is as Smart as All of Us*, 1993. Located in: Educational Assessment 1(1), pp. 71-89.

The authors describe (1) a computer network designed to let teachers working on alternative assessments communicate directly with each other; (2) examples of the communications of three teachers, their ideas and progress; and (3) an analysis of the computer dialogue to draw conclusions about what it takes to change practices. Included are great ideas for portfolio development and use, student-led parent conferences, and the professionalizing effects of teacher networking. From an analysis of network messages, the three biggest issues for teachers developing portfolio systems were logistics, establishing standards for evaluation, and rethinking the role of assessment. Each topic is discussed.

(AL# 150.6NONUSS)

McRobbie, Joan, Ed. *Using Portfolios to Assess Student Performance*, 1992. Available from: WestEd Laboratory, 730 Harrison St., San Francisco, CA 94107, (800) 645-3276.

This paper has an excellent summary of the reasons for doing portfolios.

(AL# 150.6USIPOA)

McTighe, Jay. *Developing Performance Assessment Tasks: A Resource Guide*, October 1994. Available from: Maryland Assessment Consortium, c/o Frederick County Public Schools, 115 E. Church St., Frederick, MD 21701. (301) 694-1337.

This is a notebook of performance assessment "must reads." The authors have assembled their favorite papers on: definitions, overview of performance assessment, and designing performance tasks and criteria. The notebook also contains Maryland's learner outcomes.

(AL# 150.6DEVPEA)

Mengel, Scott. *Creating Portraits of Performance*, 1994. Available from: Peakview Elementary School, 19451 E. Progress Circle, Aurora, CO 80015, (303) 699-3599, fax: (303) 766-0651.

This document is a summary of *The Portfolio Assessment Toolkit*. It introduces a package for creating electronic portfolios using HyperStudio software on Macintosh computers. The

article includes the rationale and context for the system, the content of the electronic portfolio system, samples of student work in the portfolio, rubrics, and a statement of philosophy.

The electronic portfolio includes screens for long- and short-term student goals, books read, research studies, school activities, examples of best work, teacher comments, and students' oral self-reflections. The paper also presents a sound philosophy regarding the role of rubrics in instruction.

(AL# 150.3CREPOP)

Mengeling, Michelle A. *Information Management Technology for Classroom Assessment*, 1996. Available from: Assessment Training Institute, 50 SW 2nd St., Suite 300, Portland, OR 97204, (503) 228-3060, fax: (503) 228-3014.

The author provides descriptions of software available for collecting classroom observation records, developing classroom assessments, creating portfolios of student work, and managing curriculum information. No evaluation of quality or usefulness is included; comments are only descriptive.

(AL# 150.6INFMAT)

Mengel, Scott. *Electronic Portfolios—One School's Story*, 1993. Available from: Peakview Elementary School, Cherry Creek Schools, 19451 E. Progress Cir., Aurora, CO 80015, (303) 766-1996.

This document is a set of handouts from a conference presentation. It contains enough pages of sample "screens" from the author's electronic portfolio project for readers to get a good idea of how it works. Other pages in the handout provide miscellaneous information about Cherry Creek's assessment activities.

(AL# 150.6ELEPOS)

Meyer, Carol. *Assessment Court*, 1991. Available from: Beaverton School District, PO Box 200, Beaverton, OR 97075, (503) 591-8000, fax (503) 591-4415.

This is the script for a skit given at the Northwest Evaluation Association (NWEA) alternative assessment conference, October 1991. Three sketches, simulating court cases, illustrate the importance of student ownership of the portfolio, issues surrounding the standardization of portfolios, and problems associated with adopting a prepackaged portfolio system.

(AL# 150.6ASSCOU)

Meyer, Carol. *From Folders to Portfolios (A Skit)*, 1990. Available from: Northwest Evaluation Association, 5 Centrepointe Dr., Suite 100, Lake Oswego, OR 97035, (503) 624-1951.

This skit is a light-hearted way to define what is meant by a portfolio and to highlight the differences between folders and portfolios.

(AL# 150.6FROFOT)

Meyer, Carol, Steven Schuman, and Nancy Angello. *NWEA White Paper On Aggregating Portfolio Data*, 1990. Available from: Northwest Evaluation Association, 5 Centerpointe Dr., Suite 100, Lake Oswego, OR 97035, (503) 624-1951.

This paper summarizes key issues and concerns related to aggregating assessment information from portfolios. The working definition of "portfolio" used in this document is:

"A portfolio is a purposeful collection of student work that exhibits to the student (and/or others) the student's efforts, progress or achievement in (a) given area(s). The collection must include student participation in selection of portfolio content; the criteria for selection; the criteria for judging merit; and evidence of student self-reflection."

The paper discusses a number of specific aggregation questions in six major areas.

(AL# 150.6NWEWHP)

Michigan Department of Education. *Employability Skills Assessment Kit,* Statewide Version 1.0, December 1993. Available from: Michigan Department of Education, Employability Skills Project, PO Box 30008, Lansing, MI 48909, (517) 373-8393.

Students use the Employability Skills Assessment Kit to build a case that they have the skills necessary to be a successful employee. Students gather evidence in 12 skill areas: communication (writing, reading, speaking, listening), math, science and technology, problem solving, responsibility, organization, flexibility and initiative, career development, and teamwork (communicating, responsiveness, contributing, and membership).

The handbook includes guides for students, teachers, parents, and employers; examples of possible portfolio entries; criteria for success; self, peer, and teacher evaluation materials and training information; and additional help such as using the portfolio for a job interview. This is a very complete and useful document. No technical information is included.

(AL# 000.3EMPSKA)

Ministry of Education and Training [Victoria, Australia]. ***English Profiles Handbook, Assessing and Reporting Students' Progress in English*****, 1991. Available from: Touchstone Applied Science Associates, Inc., Fields Ln., PO Box 382, Brewster, NY 10509, (914) 277-4900, fax (914) 277-3548.**

The *English Profiles Handbook* describes student proficiency in speaking, reading and writing in terms of developmental continua. There are nine bands that describe clusters of behaviors from the least to the most sophisticated. For example, writing band "A" denotes such student behaviors as: "uses writing implement to make marks on paper," and "comments on signs and other symbols in immediate environment." Writing band "I" denotes such behaviors as: "writes with ease in both short passages and extended writing," and "extended arguments are conveyed through writing."

The booklet also: (1) provides some guidance on how to make and record observations, including the classroom tasks within which teachers might make their observations; and (2) discusses how to promote consistency in judgments between teachers (without using technical terminology).

The authors point out the benefits of this approach—the bands direct teachers' attention to growth in literacy, they give teachers a common vocabulary for talking about such growth, and they allow students and parents to observe growth. The handbook is designed for informal classroom use. No technical information is available.

(AL# 400.3ENGPRH)

Mondor, Colleen. ***Effecting Change: Getting Started with Portfolios,*** **March 1994. Available from: Language Arts Consultant, Edmonton Public Schools, 1 Kingsway, Edmonton, AB T5H 4G9, Canada, (403) 429-8000.**

This paper briefly describes several portfolio projects including a system for admission into a junior high school and a junior high school cross-disciplinary portfolio.

(AL# 150.3EFFCHG)

Moss, Pamela. ***Portfolios, Accountability, and an Interpretive Approach to Validity.*** **Located in: Educational Measurement: Issues and Practice 11, 1992, pp. 12-21.**

This article explores the possibilities of using portfolios for large-scale assessment and accountability. Specifically, the author discusses why we should enhance other assessment information with classroom-based contextual information, discusses what validity means in such cases, and provides an example with grade 8 students.

(AL# 470.6PORACI)

Mumme, Judy. *Portfolio Assessment in Mathematics*, 1990. Available from: California Mathematics Project, University of California, Department of Mathematics, Santa Barbara, CA 93106, (805) 961-3190.

This paper covers the following topics: what a mathematics portfolio is, the purpose of portfolios, what could go into a math portfolio, suggestions for the layout of the portfolio, how to select items for the portfolio, and some ideas on evaluating portfolios. An outline of criteria for evaluating portfolio content is provided, but not elaborated on.

(AL# 500.6PORASI)

Murdick, William. *Portfolios and Patterns of Choice*, 1991. Located in: Portfolio News 2, 1991, p. 2. Also available from: Portfolio Assessment Clearinghouse, San Dieguito Union High School District, 710 Encinitas Boulevard, Encinitas, CA 92024; and California University of Pennsylvania, California, PA 15419, (412) 938-4082.

This article describes one teacher's approach to using portfolios to assign grades in his 9th grade composition classes. The basic procedure is that students prepare four portfolios a year, the contents of which are some combination of assigned and self-selected work. The grade for the portfolio depends on the presence of all pieces of work, but not all of them necessarily receive equal weight in the grade. The portfolio as a whole is graded, not individual papers. Several variations on this theme are discussed.

(AL# 150.6PORANP)

Murphy, Sandra, and Mary Ann Smith. *Talking About Portfolios*. Located in: The Quarterly of the National Writing Project, Spring 1990, pp. 1-3, 24-27. Also available from: The Center For The Study of Writing, 5513 Tolman Hall, School of Education, University of California, Berkeley, CA 94720, (415) 643-7022.

This article uses examples of three portfolio projects to make the point that there is no such thing as *The Portfolio*; different groups end up with different portfolio systems depending on their purposes and what would best serve the local community of teachers and students. Prior to discussing the three examples, the authors mention various possible purposes for portfolios and design considerations for portfolios. These are:

The authors conclude that:

1. The benefits of portfolios lie as much in the discussion generated among teachers as with the formal information they provide.

2. Portfolios have their greatest impact when they become part of the regular operation of the classroom.

(AL# 000.6TALABP)

Myford, Carol M., and Robert J. Mislevy. *Monitoring and Improving a Portfolio Assessment System,* circa 1994. Available from: Center for Performance Assessment, Educational Testing Service, Mail Stop 11-P, Rosedale Rd., Princeton, NJ 08541, (609) 734-5521.

Warning: this document is not for the faint of heart! Some parts are very technical and most parts are hard to plow through.

The authors describe the procedures used to score *AP Studio Art* portfolios. Prior to 1992, ratings were defined implicitly through the sample portfolios used in training. In other words, raters were trained by looking at examples of portfolios as various levels of quality, but criteria were not written down. Since 1992, there has been an attempt to write rubrics. Most of the document describes the process of scoring rather than the criteria by which work is scored. However, several pages address topics that could be helpful to develop an art portfolio rubric or scoring guide.

The authors state that the most common problems when rating are:

- Portfolios in which the student exhibits good ideas but doesn't have the technical capabilities to see the ideas through.
- Portfolios that "depart from the norm."
- Portfolios that contain pieces that are of uneven quality showing a range of ability—some weak, some strong.
- Portfolios that contain works in more than one style.
- Portfolios that use media that readers rarely encounter.
- Portfolios that reflect traditions other than the Western European tradition.
- The student produces work in an area of concentration but cannot describe it in words.
- The student writes a clear statement of purpose but is unable to carry out his or her intentions in producing work in an area of concentration.
- The written commentary is lengthy and rambles.
- The commentary seems to have been written after the works were completed.
- The student presents a high quality set of works but the written commentary is irrelevant.
- The works appear to be loosely strung together until one reads the commentary.
- Even after reading the commentary there is some question about whether the body of work really represents an area of concentration.

- The student changes the concentration midstream, or the concentration evolves into something quite different from the student's original intentions.

Specific comments by raters as to what they look for in work are also included and could provide the basis for rubrics.

(AL# 810.3MONIMP)

National Board for Professional Teaching Standards (NBPTS). *National Board for Professional Teaching Standards packet*, 1994-95. Available from: NBPTS, 300 River Pl., Suite 3600, Detroit, MI 48207, (313) 259-0973.

The goals of the National Board for Professional Teaching Standards (NBPTS) are to define what accomplished teachers should know and be able to do, promote high standards for teachers, and recognize accomplished teachers through certification. To be certified, teachers must first assemble a portfolio of evidence that includes such things as videotapes, descriptions of their professional development activities, and how such activities have been incorporated into their teaching, and self-reflections on practice. Then they go to an assessment center for two days of interviews, discussions about educational topics, and other performance assessments. The system is peer designed and scored.

The NBPTS will eventually certify teachers in 33 areas. The document includes general information about the project and sample criteria for the Early Adolescent/Generalist Assessment Exercises.

(AL# 130.3NATBOP)

National Center for Research on Evaluation, Standards, and Student Testing (CRESST). *Assessing the Whole Child*, 1994. Available from: CRESST, Graduate School of Education, 145 Moore Hall, 405 Hilgard Ave., Los Angeles, CA 90024, (310) 206-1532.

This 17-minute video illustrates and describes one teacher's use of assessment in her third/fourth grade classroom. The teacher describes various assessment techniques, why she uses each, and what each shows about students. There are clips of how it looks when used in the classroom with students. The tape shows use of: standardized tests, performance assessment, conferences, journals, and projects. The tape also shows students using developmental criteria for choosing materials for math portfolios and student self-reflection and self-assessment. The teacher's basic philosophy is that the more we know students, the better able we are to help each succeed. This is a high quality production.

(AL# 150.6ASSWHCt—text)
(AL# 150.6ASSWHCv—video)

National Center for Research in Vocational Education. *Assessment 2000: An Exhibition*, 1993. Available from: NCRVE, Materials Distribution Service, Western Illinois University, Horrabin Hall 46, Macomb, IL 61455

This 90-minute video was taped from a teleconference providing an overview of three forms of alternative assessment: "performance event,""student project/exhibit," and "portfolios" using vocational education examples. Materials from Far West Laboratory (now called WestEd), especially the C-TAP employability project, are featured. There is a good discussion of both the advantages of, and issues surrounding, these alternative forms of assessment. The video includes short presentations on the various types of assessments, interviews with principals, teachers, and students using the various techniques and questions/answers from teleconference remote sites. This is a good video.

(AL# 150.6ASS20Ev)

National Computer Systems. *NCS Abacus*, 1994. Available from: NCS Education, 11000 Prairie Lakes Dr., PO Box 9365, Minneapolis, MN 55440, (800) 447-3269, fax (612) 830-7979.

The Abacus software is an instructional management database that allows the user to:

- Store district learning goals for students
- Have an item bank of test questions keyed to district goals
- Assess student's mastery of goals and update individual student's mastery information through general tests
- Keep work samples (audio, visual, written, video)
- Cross reference instructional materials to goals
- Generate individual student, class, school, or district progress reports
- Summarize student's status and print out suggested instructional plans

Although this is a flexible system for storing information about students and generating various kinds of reports, a vision of assessment is not included. For example, the software allows scanning in samples of student work, but the user still must think through the purpose for such storage, how entries relate to district learning goals, how/whether entries will be scored, who chooses entries, etc.

(AL# 150.6NCSABA)

National Council of Teachers of English. *Portfolio Assessment: Will Misuse Kill a Good Idea?*, 1991. Located in: NCTE Council-Grams, May/June 1991, p. 1.

This short statement proposes that the main use of portfolios should be to help kids learn. Preempting them for large-scale assessment could easily destroy their instructional benefit if the large-scale design dictates content, has all the evaluation external to the teacher and students, and promotes the idea that teaching and learning needs to be controlled from above.

(AL# 400.6PORASW)

National Council of Teachers of Mathematics. *Mathematics Assessment: Alternative Approaches*, 1992. Available from: The National Council of Teachers of Mathematics, Inc., 1906 Association Dr., Reston, VA 22091.

This 71-minute videotape and guide are for professional educators who want to try new approaches to assessment, as described in the book *Mathematics Assessment: Myths, Models, Good Questions and Practical Suggestions*, by Jean Stenmark (also on this bibliography, TC# 500.3MATASM). The video is divided into six segments that each require from 8-15 minutes of viewing time. Individual segments could be used during a sequence of teacher education or staff development meetings. The segments show challenges that confront teachers through the school year as they try new approaches to assessment. Classroom clips are included. Many suggestions are provided for how to follow-up each segment. (A copy of the book *Mathematics Assessment: Myths, Models, Good Questions and Practical Suggestions* is included with the video and guide when purchased.) Topics covered include:

- Goals of alternative assessment
- Characteristics of "authentic assessment"
- Designing and using good assessment tasks
- Writing in mathematics
- Using interviews and checklists
- Portfolios
- How to implement these ideas.

(TC# 500.6MATASAv)

National Education Association. ***Student Portfolios*****, 1993. Available from: NEA Professional Library, PO Box 509, West Haven, CT 06516, (800) 229-4200.**

This book contains papers from six teachers (grades K-12) who describe their portfolio activities. The book is very user-friendly and contains many good ideas for implementation.

(AL# 150.6STUPOR)

Noble, Audrey J. and Mary Lee Smith. ***Old and New Beliefs About Measurement-Driven Reform: "The More Things Change, the More They Stay the Same," CSE Technical Report 373*****, April 1994. Available from: National Center for Research on Evaluation, Standards and Student Testing (CRESST), Graduate School of Education, UCLA Graduate School of Education, 405 Hilgard Ave., 1320 Moore Hall, Los Angeles, CA 90024, (310) 206-1532.**

The authors analyze the reasons for the failure of Arizona's large-scale performance assessment innovations. They cite:

- While beliefs about instruction and assessment changed, the negative consequences traditionally associated with large-scale assessment did not
- Test administration was timed, students could not work collaboratively, and teachers could not act as mediators
- Limited attention was given to staff development

The authors conclude, "Its (Arizona Student Assessment Program's) focus on compliance and control in effect undermines its potential to create the context necessary for educators to develop the level of competence desired by those who hope to reform education."

(AL# 150.6OLDNEB)

Oboyski-Butler, Kathy and Marni Schwartz. ***Sharing the Job of Evaluation*****. Located in: Language Arts 66, April 1989, pp. 407-413.**

In this paper, a first-grade teacher and a sixth grade teacher have a dialogue about student self-reflection. They mostly talk about the things they did to promote meaningful self-reflection; to enable students to get inside themselves. They also mentioned questions that tend to elicit pat, non thinking answers. Lots of student examples are provided.

(AL# 400.6SHAJOE)

O'Neil, Harold F., Jr., and Jamal Abedi. ***Reliability and Validity of a State Metacognitive Inventory: Potential for Alternative Assessment.*** **Located in: The Journal of Educational Research 89, March/April 1996, pp. 234-245.**

The authors report on a series of studies supporting the development of a 20-item student metacognition questionnaire. Students self-rate their thinking strategies at the end of taking a test. Scores are reported for awareness of own thinking, cognitive strategy, planning, and self-checking. Results from the studies show that the instrument is technically sound. The survey is included in the article. The paper also describes limitations of previous instruments—The Learning and Study Strategies Inventory (LASSI) and The Motivational Strategies for Learning Questionnaire (MSCQ). The article is written in a somewhat technical fashion, so it is not for the faint-hearted.

(AL# 050.3RELVAS)

Oregon New Standards Project. ***Student Portfolio Handbook—Quantify/ Science/ Mathematics—Field Trial Version/Elementary*****, 1994. Available from: Oregon Dept. of Education, Public Service Bldg., 255 Capitol St. NE, Salem, OR 97310, (503) 378-8004. Also available from: New Standards at the National Center on Education and the Economy, 39 State St., Suite 500, Rochester, NY 14614, (716) 546-7620, fax (716) 546-3145.**

This document is the elementary science and mathematics portfolio student handbook developed by the Oregon New Standards Project. It is organized around the student goals for Oregon's Certificate of Initial Mastery (CIM)—content areas (number sense, estimation, geography, measurement, statistics, patterns, physical, earth, space and life systems); and process skills (science as inquiry, problem solving, interpreting results, connections, and communication). The document includes a description of these areas, examples of items that could be selected for the portfolio that demonstrate student ability in these areas, entry cover sheets, and a self-review checklist. Students are responsible for assembling their own portfolios. The document also includes draft scoring guides and a letter of introduction. No technical information or sample student work is included.

(AL# 000.3STUPOQ)

Osterman, Dean N. ***Beginning Teacher Assessment Model (BTAM) Candidate and Assessor's Manual*****, 1994. Available from: Teacher Standards and Practices Commission, 255 Capitol St., NE, Suite 105, Salem, OR 97310, (503) 378-6627.**

The Beginning Teacher Assessment Model (BTAM) is a comprehensive beginning teacher assessment program. The BTAM portfolio requires teaching candidates to assemble a portfolio of evidence to demonstrate they have acquired 27 state-licensing competencies. Portfolios must include work samples and two 15-minute classroom instruction videotapes. They must also include six of the following: student records of achievement in the subject

area, letters from teachers or supervisors, small group instructional diagnosis (SGID) report from pupils, personal statements and reflections of work, observation reports, classroom management procedures and policies, examples of meeting the needs of multicultural diversity, professional experiences, and work related in the school, community, and other pertinent activities to demonstrate the candidate's competencies in subject matter and professional knowledge in the classroom. Portfolios are scored for: quality of entries, supporting statements for entries, knowledge, level of skill, professionalism, and readiness for standard licensure. This document includes an overview of the program and a portfolio handbook for teacher candidates.

(AL# 130.3BEGTEA)

Osterman, Dean N., and David A. Krug, 1995. *Put the Professional Portfolio into Focus for Individual and Special Education Applications*. Available from: Teacher Standards and Practices Commission, State of Oregon, Public Service Building, 255 Capitol St. NE, Suite 105, Salem, OR 97310. Also located in: *The Oregon Conference Monograph*, University of Oregon, College of Education, Vol. 7, 1995.

This paper describes the use of professional portfolios to assess beginning classroom and special education teachers.

(AL# 130.3PUTPRP)

Paulson, F. Leon and Pearl R. Paulson. *Setting the Stage for Self-Reflection, (Prepublication Draft)*, March 1993. Available from: Multnomah Educational Service District, PO Box 301039, Portland, OR 97230, (503) 257-1774.

The authors outline types of self-reflection and suggest that these occur when students make choices, compare, review, and present.

The authors also looked at 42 second-grade math portfolios to determine the frequency of the different types of self-reflection and the overall developmental status of the portfolios. The latter judgments were based on a four-point holistic scoring scheme, where "4" means "student tells coherent story of self as a learner" and "1" means "unorganized collections of work." They found all types of self-reflection in the portfolios, and the ability to self-reflect was not related to the overall quality of the portfolio.

The authors conclude by stating the position that: (1) self-reflection should be viewed as a process, not an outcome—self-reflection itself should be a window on learning, but should not be scored in, and of, itself; and (2) the best way to develop self-reflection skills is just to let students do it—structured procedures (e.g., prompted writing, checklists, etc.) should only be used as scaffolding and removed as soon as possible.

(AL# 500.6SETSTS)

Paulson, Leon. ***Portfolio Guidelines in Primary Math*****, 1994. Available from: Multnomah Education Service District, PO Box 301039, Portland, OR 97230, (503) 257-1774.**

This monograph provides good assistance with math portfolios in the primary grades. The author believes that the most important purpose for mathematics portfolios is to prompt students to take control of their own learning. Therefore, the student should be in control of the portfolio. (The author, however, also points out that there might be other audiences and purposes for the portfolios that might have be to addressed.) The author provides some ideas for tasks that students could do to generate material for the portfolio, provides some very practical suggestions for getting started, gives ideas for activities to encourage student self-reflection, and shows some draft holistic criteria for evaluating portfolios.

An example of the user-friendly way this monograph provides practical help is: "Remember, the portfolio is telling a story. Each item in a portfolio is there for a reason. It should not require a mind reader to figure out why it is there. A portfolio entry includes a piece of work plus information that makes its significance clear—the reason it was selected, the learning goals illustrated, student self-reflections, and (always!) the date." A second-grade student portfolio is included. No technical information is included.

(AL# 500.6PORGUP2)

Paulson, Leon. ***Student Self-Reflection in Primary Math Portfolios*****, 1992. Available from: Multnomah Educational Service District, PO Box 301039, Portland, OR 97230, (503) 257-1774.**

The author outlines three kinds of self-reflection in a math portfolio: single pieces (why selected, strengths/weaknesses, etc.), comparison of pieces, and the portfolio as a whole. He provides examples of the three kinds of self-reflection in the work of two second-grade students. The paper also includes some help with how to get started.

(AL# 500.6STUSER)

Paulson, Leon, and Pearl Paulson. ***An Afternoon to Remember: A Portfolio Open House for Emotionally Disabled Students*****, 1992. Available from: Multnomah Educational Service District, PO Box 301039, Portland, OR 97230, (503) 257-1774.**

Reynolds School District uses "portfolio nights" (student-led parent conferences) with severely emotionally disabled students. This paper describes how the afternoon was set up, what happened, student debriefing sessions, and changes in format based on student comments.

(AL# 340.6AFTREP)

Paulson, Leon, Pearl Paulson, and Carol Meyer. ***What Makes A Portfolio A Portfolio?*** **Located in: Educational Leadership, February 1991, pp. 60-63. Also available from: Multnomah Educational Service District, PO Box 301039, Portland, OR 97230, (503) 257-1774.**

This brief article outlines the authors' perceptions of the characteristics that make the notion of portfolio assessment powerful. These characteristics are illustrated by samples from actual student portfolios. The eight characteristics are:

1. A portfolio must contain information that shows that a student has engaged in self-reflection.
2. Students must be involved in the selection of the pieces to be included.
3. The portfolio is separate and different from the student's cumulative folder.
4. The portfolio must explicitly or implicitly convey the student's activities.
5. The portfolio may serve a different purpose during the year from the purpose it serves at the end. At the end of the year, however, the portfolio may contain only materials that the student is willing to make "public."
6. A portfolio may have multiple purposes.
7. The portfolio could contain information that illustrates growth.
8. The skills and techniques that are involved in producing effective portfolios do not happen by themselves. Students need models of portfolios and how others develop and reflect upon them.

(AL# 150.6WHAMAA)

Paulson, Pearl R. ***Portfolios: Looking for the Learner,*** **1992. Available from: Beaverton School District, PO Box 200, Beaverton, OR 97075, (503) 591-8000, fax (503) 591-4415.**

This is the transcript of a keynote address that attempts to articulate the primary purpose of portfolios as instructional tools that can also be used for assessment at various levels—student self-assessment, as well as teacher and large-scale assessment. The paper describes how the need for information and standards from those outside the classroom does not *necessarily* have to stifle the instructional value. Outside information needs can actually enhance the instructional value if students themselves are the ones selecting evidence of attainment of standards articulated by others. (But these are not necessarily the only stakeholders, nor the only standards.)

Also included is a four-point holistic guide for evaluating the portfolio. This scale is based on evidence that the student is a self-directed learner.

(AL# 150.6PORLOF)

Paulson, Pearl, and Leon Paulson. *Portfolios: Stories of Knowing*, 1991. Located in: P. H. Dreyer (Ed.), Claremont Reading Conference 55th Yearbook 1991. Knowing: The Power of Stories. Available from: Center for Developmental Studies of the Claremont Graduate School, Claremont, CA. Also available from: Multnomah Educational Service District, PO Box 301039, Portland, OR 97230, (503) 257-1774.

This article discusses portfolios as stories. The purpose of a portfolio is communication; the items chosen for the portfolio are those that best tell the story. The paper takes the position that these stories should be mostly "autobiographical"—students themselves are the authors, telling their stories of achievement, development, and accomplishment by purposefully choosing samples of work and describing why they were chosen.

(AL# 150.6PORSTO)

Pokay, Patricia A. and Carla Tayeh. *The Effect of Portfolio Use on Mathematics Attitudes and Learning Strategies*, 1994. Available from: Eastern Michigan University, Ypsilanti, MI 48197.

The authors examined the effect of student portfolios on the math self-concept, math motivation, and use of mathematical learning strategies of pre-service elementary teachers. Portions of the opinion surveys are attached.

(AL# 500.3EFFPOU)

Polakowski, Cheryl. *Literacy Portfolios—In the Early Childhood Classroom.* Located in: Student Portfolios, 1993, pp. 47-65. Available from: National Education Association (NEA) Professional Library, PO Box 509, West Haven, CT 06516, (800) 229-4200.

The author provides some useful ideas for early childhood education literacy portfolios. The author presents the list of items the teachers at her school decided would go into student portfolios, and back-up materials for each. For example, student and parent literacy interview forms are included, as is a developmental continuum in literacy to track student progress, procedures for doing a story retell to assess comprehension and help with doing miscue analysis.

The author also has useful advice on introducing portfolios to parents and how to manage the portfolio in the classroom. On the latter topic, the author emphasizes the need to have a

child-centered classroom and student independence so that the teacher can work with small groups.

(AL# 440.3LITPOC)

***Portfolio News*, 1994-95. Available from: Portfolio Assessment Clearinghouse, University of California, San Diego, Teacher Education Program, 9500 Gilman Dr. 0070, LaJolla, CA 92093.**

This document includes four issues of *Portfolio News*, Fall 1994, Spring 1995, Summer 1995, and Winter 1995.

(TC # 150.6PORNEW)

Preece, Alison. *Self-Evaluation: Making It Matter.* Available from: Faculty of Education, University of Victoria, Box 3010, Victoria, BC V8W 3N4, (604) 592-8856. Also located in: Arthur L. Costa and Benna Kallick (Eds.), Assessment in the Learning Organization: Shifting the Paradigm, 1995, Chapter 4, pp. 30-48. Available from: Association for Supervision and Curriculum Development, 1250 N. Pitt St., Alexandria, VA 22314, (703) 549-9110.

The author discusses the importance of, and how to promote, self-reflection and self-evaluation in students. The author stresses the need to move beyond trivial self-reflection and offers eight suggestions, including (1) making it a part of daily activity (rather than a separate event) and (2) helping students articulate the criteria for success.

(AL# 000.6SELMAM)

Pritchard, Diane. *Student Portfolios—Are They Worth the Trouble?*, 1992. Available from: Sisters Middle School, PO Box 555, Sisters, OR 97759, (503) 549-8521.

This paper was written by a middle school math and English teacher. It provides practical help with how to set up a portfolio system in math by describing her purpose for having a portfolio, the types of things students put in their portfolios, and activities to get students to self-reflect (including an idea for tests).

(AL# 500.3STUPOT)

Psychological Corporation, The. ***Differential Aptitude Tests, Career Interest Inventory: Guide to a Career Portfolio Student Workbook—Fifth Edition*****, 1994. Available from: The Psychological Corporation, Order Service Center, PO Box 839954, San Antonio, TX 78283, (800) 228-0752.**

The purpose of the *Guide to a Career Portfolio Student Workbook* is to provide activities that will help 7th through 12th grade students (1) interpret results from the related *Differential Aptitude Tests* and *Career Interest Inventory*, (2) make decisions about their careers, and (3) develop a career portfolio. The career portfolio allows students to demonstrate they have the skills and competencies outlined in the Secretary of Labor's Commission on Achieving Necessary Skills (SCANS) Report.

The handbook includes some useful suggestions for a career portfolio, including a nice portfolio summary section in which students highlight the displays in their portfolio that provide evidence they have attained various competencies. There is also a thorough, if somewhat standard, section on writing letters of recommendation and resumes, and how to handle job interviews. An interesting appendix contains activities for students intended to provide practice in developing various workplace competencies, and to provide a source of displays for the portfolio.

A checklist is provided to review the content of the portfolio, but no real criteria are included. Very little sample student portfolio work is included.

(AL# 000.3GUICAP)

Reckase, Mark D. ***Portfolio Assessment: A Theoretical Estimate of Score Reliability.*** **Located in: Educational Measurement: Issues and Practice 14, Spring 1995, pp. 12-14.**

In this somewhat technical article, the author simulates various portfolio features in order to estimate the likelihood that portfolios could be used to make high stakes decisions about individual students. His conclusion is that portfolios stand a chance to be used in this way if:

1. There are at least five entries that cover a well-defined "domain" of skill, e.g., ability to write.

2. Entries are rated separately by two readers and results are combined to form a total score.

3. Internal consistency for a single entry is at least .58 and the correlation between scores on different entries is at least .28.

The author also estimates that scoring costs would be $10 - $17.50 per portfolio.

(AL# 150.6PORASE)

Rief, Linda. ***Finding the Value in Evaluation: Self-Assessment in a Middle School Classroom.*** **Located in: Educational Leadership, March 1990, pp. 24-29.**

This article presents a case study to illustrate why and how students should/can choose their own topics and genres for reading and writing; and how promoting self-evaluation can add depth and meaning to learning. No grade level is given, but it seems to be upper elementary.

The author requires students to read at least 30 minutes a day and produce at least five rough draft pages of writing a week. Periodically, the students are asked to rank their work from most effective to least effective and to evaluate it by considering questions such as: (1) What makes this your best piece? (2) What makes your most effective piece different from you least effective piece? and (3) What goals did you set for yourself? How well did you accomplish them? The author also describes classroom conditions necessary to make the process work.

(AL# 470.3FINTHV)

Roe, Mary F. ***That Was Then and This Is Now: A Longitudinal Study of Teachers' Portfolio Practices*****, 1995. Available from: University of Delaware, College of Education, Educational Development, Newark, DE 19716. (302) 831-2573, fax (302) 831-4110.**

The authors report a study in which they examined how four teachers' use of portfolios shifted over three years and the impact on other aspects of the classroom. Information was collected through interviews with the teachers (the interview questions are included) and through looking at sample student portfolios.

Changes in portfolios over time were: (1) increased ability to succinctly choose student work that was indicative of development, (2) increased student control, and (3) increased use of portfolios for instructional decisionmaking. "These teachers' ability to 'whittle down' the quantity of portfolio items coincided with their ability to discuss literacy milestones, recognize student progress on a literacy continuum, target directions for literacy shifts, and document their occurrence... The experiences of these teachers affirm the promise of portfolios for improving a teacher's understanding of a child's literacy and, consequently, impacting the quality of literacy opportunities for students."

(AL# 150.6THAWAT)

Roe, Mary, and Carol Vukelich. ***Portfolio Implementation: What About R for Realistic?*** **Located in: Journal of Research in Childhood Education 9, 1994, pp. 5-14.**

The research in this paper follows the use of literacy portfolios by kindergarten teachers. The intent was to document the items chosen by teachers to document student literacy learning and to examine benefits and problems of portfolio use. One main conclusion is that district

requirements for assessment (discrete skills and grades) made it necessary for teachers to use a double system of recordkeeping. This tended to undermine the intent of the portfolios.

(TC # 400.6PORIMW)

Roskos, Kathleen A., and Susan B. Neuman. ***Of Scribbles, Schemas, and Storybooks: Using Literacy Albums to Document Young Children's Literacy Growth.*** **Located in: Young Children 49, January 1994, pp. 78-85. Available from: National Association for the Education of Young Children, 1509 16th St. NW, Washington, DC 20036.**

This gentle paper describes the use of "literacy albums" in both documenting early literacy development and in beginning to have students take control of their own learning. The article covers early literacy development, indicators of development, and how to assemble and use a literacy portfolio. No technical information is included. Some student work and checklists are included.

(AL# 070.3OFSCRS)

Rousculp, Edwin E., and Gerald H. Maring. ***Portfolios for a Community of Learners.*** **Located in Journal of Reading 35, 1992, pp. 378-385. Also available from: Washington State University, Department of Elementary and Secondary Education, Pullman, WA 99164.**

The authors describe a course for teacher candidates that attempts to model the procedures that teachers are being taught to use in their own future classrooms. Specifically, the course attempts to develop a community of learners by requiring students to access the instructional research in their field to develop strategies for teaching various concepts, adapt the strategy to a particular situation (self-chosen), get peer review of plans, revise the strategy in light of the review, and add a biography of the work (steps in developing the strategy, thinking involved, etc.). Students were required to develop 12 strategies for the term. Three (with all supporting materials and steps) were submitted in a portfolio for grading. The authors also examined the portfolios for evidence of metacognition, use of prior knowledge, writing to learn, peer responses, cognitive engagement, enthusiasm, and intertextuality (using one text to help understand another). Sample student statements from the portfolio are included to illustrate each concept.

(AL# 000.3PORFOC)

Russell, David. ***Collaborative Portfolio Assessment in the English Secondary School System.*** **Located in: The Clearing House 68, March/April 1995, pp. 244-247.**

The author describes the assessment system used in England to certify the competency of high school students and enable them to pass to higher levels of education. Such certification is based on portfolios assembled during each two-year "course" of study. General content for

the portfolios is specified, but there is leeway for student choice. Portfolios are assessed through a process of "moderation" in which a sample of teacher-scored portfolios goes to a moderator who checks for consistency among teachers; a sample of portfolios from moderators goes to a team leader to check for consistency; and so forth up to the national level. The paper only describes this process; no criteria, sample student work, nor technical information is included in the paper.

(AL# 150.6COLPOA)

Salinger, Terry. ***Classroom-Based and Portfolio Assessment for Elementary Grades.*** **Located in: Carolyn Hedley, Dorothy Feldman, and Patricia Antonacci (Eds.), Literacy Across the Curriculum, 1992, pp. 133-155. Available from: Ablex Publishing Corporation, 355 Chestnut St., Norwood, NJ 07648.**

This paper discusses the current state of assessment and makes two suggestions for its improvement: taking advantage of the assessment opportunities within classroom instruction interactions, and using portfolios to assess literacy growth. Of special interest:

- A list of 14 questions that must be addressed when planning alternative assessments
- Examples of classroom opportunities for observing students
- A discussion of the necessity for clear criteria for success and for clearly communicating criteria to students
- A rubric for assessing literacy portfolios. Included are writing, reading and content area knowledge (six levels of achievement are specified)
- Other ways to assess portfolios in addition to using rubrics—more open-ended examinations and posing individual questions
- Ideas for grading using portfolios

(AL# 400.6CLABAP)

Salinger, Terry, and Edward Chittenden. ***(Focus on Research): Analysis of an Early Literacy Portfolio: Consequences for Instruction.*** **Located in: Language Arts 71, October 1994, pp. 446-452.**

The authors discuss findings from research with the South Brunswick, NJ, schools, where an Early Literacy Portfolio has been in use across the district for over five years. The purpose of the portfolio, in its current form, is to help teachers document students' literacy learning in a way that is responsive to each child's capabilities. Teachers assemble the information reports at roughly the same times in the school year. Content includes writing samples, story

retellings, oral reading records, invented spelling, a sight-words inventory, interviews with parents and students, and self-portraits. Portfolios are kept throughout the primary grades.

Student literacy progress is assessed using a developmental continuum. To promote consistency in scoring, teachers get together each year to rate a sample of portfolios. The authors also report on a study of the effects of the portfolio on instruction (through interviews), and discuss issues that arose during implementation.

(AL# 440.3ANAEAL)

Scherban-Sierra, Pamela. *Portfolios and Their Use in a Reading Course*, 1994. Available from: School of Education, California Lutheran University, 60 Olsen Rd., Thousand Oaks, CA 91360.

This document is a series of papers from different perspectives on the use of portfolios for teacher candidates at California Lutheran University. It constituted a symposium at the Annual Conference of the California Educational Research Association, November 18-19, 1993, Long Beach, CA. The document consists of:

- An outline of the required content of the portfolio
- A statement by an employer of the usefulness of the portfolio in making hiring decisions
- Examples of portfolio use in the reading/language arts methods, technical and measurement classes

(AL# 130.3PORTHB)

Schmar, Elizabeth. *Student Self-Assessment.* Located in: Tara Azwell and Elizabeth Schmar (Eds.), Report Card on Report Cards, 1995, Chapter 15, pp. 183-195. Available from: Heinemann, 361 Hanover St., Portsmouth, NH 03801, (603) 431-7894.

The authors provide several good ideas for helping elementary students get started with self-assessment and the importance of doing so. No research is cited.

(AL# 150.6STUSEA)

Scholastic, Inc. *Electronic Portfolio*, 1995. Available from: Scholastic Software, Scholastic Inc., PO Box 7502, Jefferson City, MO 65102, (800) 541-5513.

This document provides a brief overview of Scholastic's Electronic Portfolio. Examination disks are included.

(AL# 150.6SCHELP)

Schuman, Steve, and Sondra Maier. *Self-Reflection Skills and Forms*, 1991. Available from: Federal Way School District, 31405 18th St. S., Federal Way, WA 98003, (206) 941-0100.

This package consists of ideas for prompting students to self-reflect as part of the portfolio process. Open-ended ideas include statement and question prompts for the student to complete such as: "What I want to do by using the portfolio" and "My work is like or different from the standard in the following ways." There are also a series of structured checklists. For example "Put a check in the box next to the 10 words which best describe how you feel when working on your portfolio" and "The reasons I have picked this as an example of my work is..." (this is followed by a list of things to choose from). In a personal communication, the authors described some studies that are being done to see how the various formats work and how responses differ between students. It may be the case that students with different learning styles might respond better to one format than another. The point is not the format used, but that whatever we do nudges the student in a positive direction.

(AL# 000.3SELRES)

Schwartz, Jeffrey. *Let Them Assess Their Own Learning.* Located in: English Journal, February 1991, pp. 67-73.

This paper focuses on high school student self-assessment in reading and writing. The author believes that students take more control of their learning when they share in assessment. The paper provides good ideas on how to create an environment that encourages student self-reflection among students who have never before engaged in self-assessment.

(AL# 470.6LETTHA)

Selah High School. *Creating a Student Portfolio—A Guide for Students* and *Creating a Student Portfolio—A Guide for Parents*, undated. Available from: Selah High School, 801 N. 1st St., Selah, WA 98942, (509) 697-0800.

Selah High School in Washington state, is piloting employability/college admission portfolios with students. We have the parent and the student handbooks, both written in a very friendly and understandable style. They provide a description of the process, rationale for the portfolio, skills looked for by employers, examples of exhibits that could be used to demonstrate skills, and how to write cover sheets for exhibits. No technical information or samples of student work are included.

(AL# 000.3CRESTP)

Sequin, Marilyn ***The Perfect Portfolio for Artists and Writers—How to Put Together a Creative "Book" that Sells*****, 1991. Available from: The Career Press, 62 Beverly Rd., PO Box 34, Hawthorne, NJ 07507, (800) 227-3371, fax: (201) 427-2037.**

This book is an excellent guide to developing portfolios for job interviews in the fields of communication or visual arts. It is especially designed for those seeking their first job. It includes "how-to's" for job application letters, what to put in, how to arrange the content, types of binders and folders, how to present the portfolio in an interview, and several detailed examples and answers to commonly asked questions.

The book also includes related advice (such as 50 interview questions to be ready for) and a bibliography of resources.

(AL# 000.6PERPOR)

Serrano, Claudia. ***A Look at Portfolio Assessment in San Diego High School's Sophomore House,*** **1991. Available from: San Diego City Schools, 4100 Normal St., Room 3133, San Diego, CA 92103, (619) 298-8120.**

This paper describes an interdisciplinary (physics, math, and English) portfolio system for tenth graders that supports block scheduling in an inner city magnet school. Students keep a notebook of all work in each class. Class portfolios are developed from selected work in the notebook. Class portfolios are used as the basis for the culminating "House Portfolio" in which students select work to demonstrate that they have attained specified learning goals across disciplines. The "House Portfolio" also includes written reflection and a final exhibition of mastery.

The document includes student instructions for assembling the portfolio, an entire student portfolio, instructions for a formative oral presentation of their portfolio, checklists and evaluation forms, and assistance with reflective writings and exit exhibitions. No technical information is included.

(AL# 000.3LOOPOA)

Shapley, Kelly S. and Marcelo F. Pinto. ***Can a Standards-Based Portfolio Assess Student Performance in the Primary Grades?*****, 1996. Available from: Dallas Public Schools, Stephen J. Hay Bldg., 3801 Herschel Ave., Dallas, TX 75219.**

This paper was presented at the annual meeting of the American Educational Research Association, New York City, April 1996.

The author describes a reading and writing portfolio project used to assess the progress of Chapter 1 students in grades K-2. Teachers selected at least two work samples for each student three times a year. They included as many samples as it took to demonstrate progress on goals as defined in the Texas Essential Elements. Progress was rated holistically on a 4-

point scale where 3=proficient. The paper includes the rubrics (they are somewhat skimpy and many terms are undefined). The paper includes a lengthy discussion of the degree of implementation of the portfolio system, whether/how student progress on the goals could be documented by the portfolio, and reliability and validity of results. The authors conclude that the portfolio has potential, but technical quality is problematic. They suggest future steps to address this issue.

(AL# 400.3CANSTB)

Shapley, Kelly S. and Marcelo F. Pinto. ***Implementing a Large-Scale Portfolio Assessment in the Primary Grades: Teachers' Personal, Task, and Impact Perspectives*****, 1996. Available from: Dallas Public Schools, Stephen J. Hay Bldg., 3801 Herschel Ave., Dallas, TX 75219.**

As part of the implementation of the 1994-95 Chapter 1 Portfolio Assessment in the Dallas Public Schools, trained monitors visited schools twice during the year to provide assistance with, and collect data on, the implementation process. Data from interviews and questionnaires provided information about teachers' reactions to the portfolio and the perceived impact of the portfolio implementation in teachers' instruction. Specifically, interview and survey questions addressed levels of concern about the innovation and perceived impact on themselves and their students. Results indicated:

- The overall impact of implementing the portfolio process, from a teacher's perspective, was positive.
- Teachers grew in their personal level of comfort.
- Teachers identified many instructional benefits that were a consequence of portfolio implementation: use of the portfolio to identify students' strengths and needs, plan instruction, evaluate their own instruction, integrate assessment and instruction, periodically assess students, and communicate with parents.

Interview and survey questions are included as are complete survey results. No technical information on the instruments themselves is included.

(AL# 130.3IMPLAS)

Short, Kathy G. and Gloria Kauffman. ***Hearing Students' Voices: The Role of Reflection in Learning.*** **Located in: Teachers Networking—The Whole Language Newsletter 11 (3), Spring/Summer 1992, pp. 1-6.**

This is a very practical article written by two elementary teachers. They discuss (1) ideas for establishing a reflective environment in the classroom; and (2) portfolios that encourage students to define their own progress as learning. "Most educators begin the portfolio

process by suggesting that teachers list the desired learning outcomes and then work with students to create portfolios to provide evidence of those outcomes. Because we wanted the portfolios to reflect what students saw as their learning outcomes rather than ours, we decided to explore a different kind of portfolio that would highlight the children's perspective." The authors wanted others to know what children thought about their own learning rather than asking students to reflect on their progress on the skills that adults value.

(AL# 400.3HEASTV)

Simmons, Jay. *Portfolios For Large-Scale Assessment.* Located in: Donald Graves and Connie Sunstein (Eds.), Portfolio Portraits, 1992. Available from: Heinemann Educational Books Inc., 361 Hanover St., Portsmouth, NH 03801, (603) 431-7894.

This chapter discusses one example of the use of writing portfolios for large-scale assessment in grades 5, 8 and 11. Two hundred sixty-three students selected what they considered to be their three best pieces of writing and completed a cover sheet for each piece that indicated reasons why the paper shows quality writing, when the paper was started and finished, the amount of time spent on it, and its length. Students also submitted a timed writing sample on an assigned prompt. All samples were scored using a holistic system. Additional analyses were carried out such as: comparing student perceptions of their strengths to scorer perceptions of strengths, comparing the timed piece to the others, comparing writing time to quality of products, etc.

The author discovered that it is possible to obtain interesting information about products (the quality of student work), process (the way in which students go about writing), and programs (the way that writing is taught) from these analyses. For example: the longer students spent on their pieces, the better they were; students generally chose narratives as examples of their best writing; students who score low on timed writing samples look much better on their portfolio work; portfolio pieces were often included with substantial teacher comments left unaddressed; etc

(AL# 470.3PORLAA)

Snider, Mary Ann, Susan Skawinski Lima, and Pasquale J. DeVito. *Rhode Island's Literacy Portfolio Assessment Project*, 1994. Located in: Sheila W. Valencia, Elfrieda H. Hiebert, and Peter P. Afflerbach (Eds.), Authentic Reading Assessment: Practices and Possibilities, 1994, pp. 71-88

Rhode Island's literacy portfolio project, begun in 1989, is not mandated. Rather, it has been an exploration of better ways to link assessment with classroom literacy practices with a voluntary teacher team. The authors note three stages in the development of their portfolio system:

1. Focus on mechanics—who has access, what activities could be put in and when, and what a portfolio looks like.

2. Focus on student outcomes, criteria for evaluation progress, and sharing criteria with students.

3. Focus on self-reflection and student control.

This document describes the development process, lessons learned, and effect on teachers, classrooms, and students. The actual portfolio model is not described

(AL# 400.3RHOISL)

Spandel, Vicki, and Ruth Culham. ***In the Classroom—Putting Portfolio Stories to Work*****, 1994. Available from: IOX, 5301 Beethoven St., Suite 109, Los Angeles, CA 90066, (310) 822-3275, fax (310) 822-0269.**

This video program showcases four types of portfolios (progress, celebration, selected works, and certifying competence) and emphasizes the importance of having a clear purpose and encouraging student self-reflection. Featuring video footage from real classrooms, this program shows students working with portfolios at different grade levels and in different learning contexts.

(AL# 150.6INCLSg02—guide)
(AL# 150.6INCLSt02—text)
(AL# 150.6INCLSv02—video)

Spicuzza, Frank J. ***An Evaluation of Portfolio Assessment: A Student Perspective.*** **Located in: Assessment Update—Progress, Trends, and Practices in Higher Education 8, November-December 1996, pp. 4-6, 13. Available from: Jossey-Bass, Inc., Publishers, 350 Sansome St., San Francisco, CA 94104, (415) 433-1767.**

The author reports on a study of impact of portfolios on 87 college seniors in the 1994-96 school years. Seniors were asked to provide written comments on the portfolio process as part of the portfolio. They were also invited to provide feedback anonymously using a four-point Likert scale which asked about portfolio impact on such things as personal and professional growth, and preparation for employment. The seniors were consistent in their view of the portfolio as a challenging assignment, an integrating experience, and a confidence builder. The paper describes the study but does not include the survey instrument itself, specific examples of student comments, nor a detailed description of the portfolio system used.

(AL# 150.6EVAPOA)

Stenmark, Jean. ***Mathematics Assessment: Myths, Models, Good Questions, and Practical Suggestions*****, 1991. Available from: National Council of Teachers of Mathematics, 1906 Association Dr., Reston, VA 22091, (800) 235-7566.**

This monograph was designed for teachers in the elementary grades. It is a collection of examples of math assessment techniques that focus on student thinking. Topics include the rationale for new ways of assessing mathematics, the necessity of integrating assessment and instruction, designing performance assessments (most emphasis is on designing the task, although sample holistic and analytical trait scoring systems are shown), what to look for during classroom observations and interactions (including questions to ask to get at various types of thinking), portfolios (including types of items to include, the types of information they can demonstrate about students, and criteria for evaluation), student self-assessment, and hints to make assessment work in the classroom.

(AL# 500.3MATASM)

Swicegood, Philip, ***Portfolio-Based Assessment Practices*****. Located in: Intervention in School and Clinic 30, September 1994, pp. 6-15.**

The author describes three years of work on using portfolios with special needs students. The paper covers:

- The rationale for using portfolios with special needs students
- Four categories of information about students that could be included (behavior, academic growth, process skills, and cultural factors)
- Linking IEP's with portfolios

The process, as described, is very teacher-centered. No sample student work or technical information is included.

(AL# 150.6PORBAA)

Teacher Assessment Project. ***Biology Examiner's Assessment Center Handbook*****, May 1989. Available from: Stanford University, School of Education, CERAS 507, Stanford, CA 94305, (415) 725-1228.**

The goals of the Assessment Center in biology are to develop performance exercises that assess knowledge, skills and dispositions as a teacher of biology. This handbook was designed to introduce teachers to Assessment Center exercises. There are three types of exercises: extensions of portfolio information gathered previously, performance of tasks using the information in the portfolio entry as a starting point, and stand-alone exercises that do not use portfolio entries. The individual exercises involve reviewing unit plans, discussing student evaluation, monitoring student laboratory work, analyzing alternative

instructional materials, reviewing a videotape of an instructional situation, adapting a textbook chapter to one's needs, using the computer as an instructional tool, and discussing a teaching problem. The handbook describes these exercises and how performance will be evaluated.

(AL# 130.4BIOEXA)

Teacher Assessment Project. *Elementary Literacy Assessment Center Examiner's Handbook*, 1989. Available from: Stanford University, School of Education, CERAS 507, Stanford, CA 94305, (415) 725-1228.

The goals of the Assessment Center are to develop performance exercises to assess a teacher candidate's knowledge, skills and dispositions as a Board certifiable teacher of elementary literacy. This document is the manual used to train evaluators who rated teacher performances during the field test of Literacy Assessment Center exercises.

The manual describes six performance-type exercises related to three strands: assessment of students, integrated language arts instruction, and creating a literate environment. Some of the exercises draw on literacy portfolios previously developed by the teacher candidates. Others are stand alone exercises that simulate teaching situations and are independent of the portfolio entries. Descriptions of the exercises and rating forms used to judge performance are provided.

(AL# 130.4ELELTA)

Teacher Assessment Project. *Portfolio Development Handbook for Teachers of Elementary Literacy*, 1988. Available from: Stanford University, School of Education, CERAS 507, Stanford, CA 94305, (415) 725-1228.

This document is the handbook for grade 3 and 4 teachers to use in developing their own literacy portfolios in reading comprehension and composition. For this purpose, a portfolio is defined as a collection of documents that provide evidence of the knowledge, skills and dispositions of an elementary teacher of literacy. Specifications for portfolio entries include four items that relate to integrated language instruction, three that relate to creating a literate environment, and four about assessment of students. Teachers may also present an open entry and a reflective interpretation of any and all entries. The handbook provides guidance on what these entries should be like and how to choose them.

(AL# 130.4PORDEH)

Thomas, William H., Barbara A. Storms, Karen Sheingold, et al. *California Learning Assessment System—Portfolio Assessment Research and Development Project—Final Report*, December 1995. Available from: Center for Performance Assessment, Educational Testing Service, Mail Stop 11-P, Rosedale Rd., Princeton, NJ 08541, (609) 734-5521.

The goals of the California Learning Assessment System (CLAS) portfolio component were to design a system that both supported California's instructional reform and provided trustworthy information about student performance in relation to state curriculum frameworks. In addition, to be effective, the system had to value the diversity of instructional programs and portfolio projects in the state, to complement other components of the state assessment system, and be built on evidence of achievement from the ongoing work that students did in classrooms.

The system was "non-prescriptive"—students and teachers select whatever work they felt demonstrated student achievement on California's content standards in writing, reading, and math. Thus, content in the portfolios varied greatly and had to be assessed using general performance criteria that describe what quality work looks like on each dimension of the content standards. Criteria are included for composing/expressing (writing), constructing meaning (reading), communicating math, math content, and putting math to work. The report includes a description of the development process, rater consistency of resulting portfolios, results of a survey of teachers concerning the impact of participation in the project, and copies of the rubrics for each area assessed. No sample portfolios are included. According to the authors, the teachers reported that the experience of looking at students' assessment portfolios in terms of specific criteria for assessing broad dimensions of learning had a powerful impact on their understanding of what students can or should be learning and how they, as teachers, might support that learning.

(AL# 000.3CALLEA)

Thompson, Linda. *Portfolio Model*, 1994-95. Available from: Linda Thompson, Chief Moses Junior High School, 2215 Westshore Dr., Moses Lake, WA 98837, (509) 766-2661.

The author is experimenting with the use of portfolios in her seventh grade math classes. Students are asked to included in their portfolio at least one entry for each of: mathematics as problem solving, mathematics as communication, mathematics as reasoning, mathematics connections, estimation, number sense and numeration, concepts of whole number operations, whole number computation, geometry and spatial sense, measurement, statistics/probability, fractions and decimals, patterns and functions. A single entry might serve to illustrate more than one skill. Thus, the portfolio is designed to align with the NCTM standards.

The packet of materials includes the direction sheets for students, a sheet for each portfolio entry (revised in 1995 because students needed additional help selecting entries and reflecting

on them), a self/peer rating sheet for group cooperation, a list of required content for a parent conference portfolio, the student version of a scoring guide for individual portfolio entries, and two activities designed to assist students to better understand and use the criteria (added in 1995). The scoring guide is holistic and uses a four-point scale where "4" is: "This response provides proof that you really understand the mathematical concepts you are demonstrating. You have communicated your understanding so well there is no question that you have mastered the ideas being explored." Thus, students are scored on conceptual understanding and communication; the packet contains no rubrics for problem solving, reasoning or connections.

The packet also does not include technical information nor sample student work. The author has given permission for educators to copy the materials for their own use.

(AL# 500.3PORMOD)

Tierney, Robert J., Mark A. Carter, and Laura E. Desai. *Portfolio Assessment in the Reading-Writing Classroom*, 1991. Available from: Christopher Gordon, Publishers, Inc., 480 Washington St., Norwood, MA 02062, (617) 762-5577.

This book was designed for classroom teachers, and the information is presented in a very user-friendly style and format. The authors discuss issues surrounding assessment and portfolios, provide many examples of portfolios systems, explore the ways that portfolios can be used instructionally, and show examples of criteria for assessing portfolio entries, portfolios as a whole, and metacognitive letters.

(AL# 400.6PORASC)

Unanue, Ginny. *Portfolio Assessment—An Old Technique*, 1991. Available from: Magnolia School, Carlsbad School District, 801 Pine Ave., Carlsbad, CA 92008.

This document describes one teacher's experience with portfolios. She provides ideas and suggestions in the following areas:

- The necessity to annotate every entry in the portfolio, and how to do it
- How to keep parents aware of student work while still keeping work in the portfolios
- The types of things that could be put in a portfolio
- Writing abilities to be expected at various grade levels (1-6)
- Criteria for assessing handwriting, response to literature, and narrative writing

(AL# 400.6CARPOA)

University of Cambridge. ***AICE: An Introduction—Advanced International Certificate of Education*****, 1996. Available from: The AICE Coordinator, University of Cambridge, Local Examinations Syndicate, 1 Hills Rd., Cambridge, England CB1 2EU, United Kingdom, phone (international): +44 1223 553311, fax (international): +44 1223 460278.**

The *Advanced International Certificate of Education (AICE)* is an international pre-university curriculum and examination system similar to advanced placement courses and tests in the US. *AICE* is administered by the University of Cambridge Local Examinations Syndicate (UCLES). UCLES courses and assessments are available in mathematics and sciences, languages, and arts and humanities. Assessments use a variety of formats including on-demand essays and classroom-embedded portfolios. We have information about the courses and exams in English, Spanish, physics, music, art, and mathematics.

(AL# 000.3ADVINCt—text)
(AL# 000.3ADVINCv—video)

Valencia, Sheila. ***A Portfolio Approach To Classroom Reading Assessment: The Whys, Whats and Hows.*** **Located in: The Reading Teacher, January 1990, pp. 338-340.**

In addition to discussing the rationale for using portfolios to assess reading, this article also suggests content for reading portfolios, how to select material for a portfolio and how the portfolio should be organized.

The real value of portfolios, according to the author, lies not in any single approach, but rather in the mind set that 1) sound assessment is anchored in authenticity; 2) assessment must be a continuous process; 3) valid reading assessment must be multi-dimensional; and 4) assessment must provide for active collaborative reflection by both teacher and student.

(AL# 440.6APORAP)

Valencia, Sheila. ***Portfolios: Panacea or Pandora's Box?.*** **Located in: Fredrick Finch (Ed.) Educational Performance Assessment, 1991, pp. 33-46. Available from: Riverside Publishing Company, 8420 Bryn Mawr Ave., Chicago, IL 60631, (800) 323-9540.**

In this paper the author reviews the rationale for portfolios and discusses the current state-of-the-art. Cautions include the need to have a clear purpose for the portfolio, the need to have performance criteria to judge portfolio quality, the need to attend to technical quality when using portfolios for assessment, feasibility, and the need for staff development.

(AL# 150.6PORPAP)

Valencia, Sheila W., and Robert Calfee. ***The Development and Use of Literacy Portfolios for Students, Classes, and Teachers.*** **Located in: Applied Measurement in Education 4, 1991, pp. 333-345.**

After discussing definitions and some practical and technical issues surrounding portfolios, the authors briefly describe a "classroom portfolio" designed to demonstrate to the school board the achievement of third graders as a group. This is an example of a "composite portfolio" in which work from more than one student is included in order to tell the story of group achievement.

(AL# 400.3DEVUSL)

Valencia, Sheila, William McGinley, and P. David Pearson. ***Assessing Reading and Writing: Building a More Complete Picture*****, 1989. Available from: University of Washington, Seattle, WA 98195.**

The author describes a procedure for developing student portfolios of work in the areas of reading and writing. She advocates collection of responses to a number of tasks that vary along the dimensions of focus (mechanics v. how well something achieved its purpose); structure (structured or naturalistic); locus of control (student self-assessment v. teacher assessment); and intrusiveness. Collecting a variety of outputs for various purposes in various task settings enables one to get a broad picture of achievement. However, the author warns that the content of the portfolio has to be planned so that not everything is included. She recommends three types of content—required (everyone collects the same things in the same way); semi-required (certain types of things are required, but exactly what is kept is up to the teacher and student); and open-ended (the teacher and/or student select any work that they feel exemplifies the student's achievement). The paper is descriptive; no samples of student work are included.

(AL# 400.3ASSREA)

Vavrus, Linda. ***Put Portfolios To the Test.*** **Located in: Instructor, August 1990, pp. 48-53.**

This paper is designed to be an introduction to the use of portfolios. The author defines a portfolio as a "systematic and organized collection of evidence used by the teacher and student to monitor growth of the student's knowledge, skills, and attitudes in a specific subject area." There is a brief discussion of the following topics: What will it look like? What goes in? How and when to start? Evaluating portfolios; and Passing Portfolios On. While there are a few concrete examples, most of the article is a list of questions that must be addressed when setting up a portfolio system.

The paper also includes a short interview with Grant Wiggins. His definition of a portfolio appears to include the requirement that portfolios represent students' best work.

(AL# 150.6PUTPOT)

Vermont Department of Education. *Looking Beyond "The Answer": The Report of Vermont's Mathematics Portfolio Assessment Program*, 1991. Available from: Vermont Department of Education, 120 State St., Montpelier, VT 05620, (802) 828-3135.

This is the report of the pilot year of Vermont's grade 4 and 8 mathematics portfolio system used for large-scale assessment. The report contains information on the rationale for the portfolio approach, a description of what students were to include, a description of the criteria used to evaluate the portfolios (with sample student performances to illustrate the scoring scale), the scoring and training process, results, and what was learned about large-scale assessment using portfolios. Two interesting results were:

- They did not formally score portfolios for dispositions this year; they just gathered statements from student work that might help in developing a scale for future assessments. (Several of these statements are included in the report.)
- Only 58% of the portfolios in grade 8 and 83% in grade 4 were scorable; that is, a large proportion of the entries (at least in grade 8) did not have enough "text" to score (they contained such things as drill sheets and multiple-choice problems). They hypothesize that this was due to the generality of the guidelines for specifying what was to be included in the portfolio.

(AL# 500.3REPOFV)

Vermont Mathematics Portfolio Project. *Resource Book*, 1991. Available from: Vermont Department of Education, 120 State St., Montpelier, VT 05602, (802) 828-3135.

This document includes sample performance tasks taken from portfolio entries submitted by teachers as part of Vermont's 1991 math portfolio pilot project, a resource bibliography, and a list of suggested readings. The purpose is to provide colleagues with tasks that have worked well with students to promote problem solving. This is meant as a companion document to the Teacher's Guide (AL# 500.3TEAGUI).

(AL# 500.3RESBOO)

Vermont Mathematics Portfolio Project. *Teacher's Guide*, 1991. Available from: Vermont Department of Education, 120 State St., Montpelier, VT 05602, (802) 828-3135.

This document presents Vermont's updated view of what should go into a mathematics portfolio, provides detailed information about the scoring criteria for portfolio entries and the

portfolio as a whole, discusses how to develop tasks that will invite student problem solving, and provides help with how to manage the portfolios. This is a companion piece to AL# 500.3RESBOO.

(AL# 500.3TEAGUI)

Vermont Mathematics Portfolio Project. *Grade Eight Benchmarks*, 1991. Available from: Vermont Department of Education, 120 State St., Montpelier, VT 05602, (802) 828-3135.

This document provides lots of samples of grade eight student work that illustrate different scores for each of the seven analytical traits used in the Vermont Mathematics Portfolio Project. Samples were taken from the 1991 portfolio pilot.

(AL# 500.3GRAEIB)

Vermont Mathematics Portfolio Project. *Grade Four Benchmarks*, 1991. Available from: Vermont Department of Education, 120 State St., Montpelier, VT 05602, (802) 828-3135.

This document provides lots of samples of grade four student work that illustrate different scores for each of the seven analytical traits used in the Vermont Mathematics Portfolio Project. Samples were taken from the 1991 portfolio pilot.

(AL# 500.3GRAFOB)

Viechnicki, Karen J., Jane Rohrer, Richard Ambrose et al. *The Impact of Portfolio Assessment on Teacher's Classroom Activities*, 1992. Available from: Kent State University, Kent, OH 44242.

This paper reports on a project in which portfolios were used to identify disadvantaged primary-aged students for a gifted and talented program. The portfolio for each student was assembled by the classroom teacher and included: anecdotal records (at least one per week), observations of six sample lessons, a peer/self nomination form, a home-community survey, and examples of products produced by the student. Portfolios were analyzed for evidence of exceptional learning, use of information, creativity, or motivation. (General descriptions of these areas are provided but no detailed definitions or illustrative student work are included.)

The authors also conducted interviews with teachers on the effect of the portfolio process on their daily instructional activities. Results showed that teachers have changed their teaching and management styles in the classroom, and that they view the students differently as a result of putting together the portfolios.

(AL# 070.6IMPOPA)

Villano, Jim. ***Fairbanks Metacognitive Cover Letter Exercise*****, 1991. Available from: Fairbanks North Star Borough Schools, 520 5th Ave., Fairbanks, AK 99701, (907) 452-2000, fax (907) 451-6160.**

This document describes an exercise designed to get seventh grade students to analyze metacognitive letters in preparation for writing their own. Students are given nine metacognitive letters and are asked to guess the grade level of the students writing each, and why they came to the conclusions they did. Then students list all the different types of statements that students made in these letters, and, finally, pick the best letters and discuss what made them good. Copies of the letters and a description of the exercise are included.

(AL# 470.6FAIMEL)

Vizyak, Lindy. ***(Teaching Reading): Student Portfolios: Building Self-Reflection in a First-Grade Classroom.*** **Located in: The Reading Teacher 48, December/January 1995, pp. 362-364.**

In this short paper, a first grade teacher shares her experiences of developing and using literacy portfolios with first grade students. She describes two types of portfolios: student-managed and teacher-student. (She wants students to experience selecting work for different audiences and purposes.) She discusses what didn't work (e.g., having the student portfolios be teacher-centered) and what did work (e.g., modeling what to do by sharing her own portfolio with students, giving students control, and providing time to select work and describe to peers reasons for choices, and conducting mini-lessons to help students expand the reasons for their choices.)

(AL#440.3STUPOB)

Wagner, C. Lyn, Dana R. Brock, and Ann T. Agnew. ***Developing Literacy Portfolios in Teacher Education Courses.*** **Located in: Journal of Reading 37, May 1994, pp. 668-674.**

The authors implemented portfolios in their language arts methods course to develop familiarity with forms of performance assessment student teachers might use in their own classes. Using portfolios is one way to develop "empowered professionals"—teachers who engage in reflective thinking, learn from social interactions with professional peers, are informed decisionmakers, and set personal learning goals.

Student teachers developed "literacy portfolios"—understanding oneself as a language user. Criteria for portfolios included such things as breadth of readings, writing, evidence of reflective thinking, and use of the writing process. The rating form is included. Not included are samples of student work or technical information.

(AL# 400.3DEVLIP)

WestEd. ***Career Preparation Assessment—Guidelines for Students*****, 1995. Available from: Daniel McLaughlin, WestEd, 730 Harrison St., San Francisco, CA 94107, (415) 241-2720, fax: (415) 241-2702, e-mail: dmclaug@wested.org**

The *Career Preparation Assessment (CPA)* portfolio is designed to document high school student skills in the areas addressed by the SCANS report as being essential for success in the workplace or further education: thinking and problem solving, communication, technology literacy, interpersonal, personal, employment literacy, and occupational safety.

The completed portfolio contains: personal statement, resumé, application, letter of recommendation, two work samples, writing sample, and interpersonal skills evaluation. The handbook includes a description of all components; help in choosing, completing, and assembling portfolio entries; and rating criteria. Although no technical information is included, the package has been pilot tested. I like this one.

(AL# 223.3CARPRA)

Wilcox, Bonita L. ***Smart Portfolios for Teachers in Training*****. Located in: Journal of Adolescent and Adult Literacy 40, November 1996, pp. 172-179.**

The author describes a portfolio process for pre-service teachers aimed at practicing strategies that result in professional thoughtfulness. The portfolio has five sections:

1. Reading—documents new information and ideas
2. Interacting—"artifacts from activities and exercises done in groups to illustrate the importance of thoughtfulness in teaching and learning"
3. Demonstrating—applying new pedagogical strategies in practice lessons
4. Writing—papers that show evidence that "prior knowledge has been assessed, new knowledge has been integrated, and current knowledge can be documented"
5. Thinking—a journal having three parts, one for book notes and reader responses, one for recording thoughts from class interactions and feedback from lesson demonstrations, and one for reflecting on ideas and strategies under investigation

The paper describes how the author sets it up in her classes. It includes lots of practical help, but no discussion of criteria as a mechanism for thoughtful self-reflection.

(AL# 130.4SMAPOT)

Wilkins, Cynthia. *Student Portfolio (Algebra)*, circa 1994. Available from: Northwest Rankin Attendance Center, 62 Terrapin Hill Rd. North, Brandon, MS 39042, (601) 825-2522.

This algebra or pre-algebra portfolio is intended to represent all that a student has learned during the year. The short document describes each entry (e.g., math autobiography, concept explanation, journal topic, specific skills, etc.) and emphasizes student self-reflection. Although point values for each entry are suggested, there are no criteria for assigning points. It has been used for seventh and eighth graders taking algebra. Student directions are available.

(TC# 530.3STUPOA)

Wilson, Jeni, and Lesley Wing Jan. *Thinking for Themselves: Developing Strategies for Reflective Learning*, 1993. Available from: Heinemann, 361 Hanover St., Portsmouth, NH 03801.

The authors are from Australia and offer a practical look at the reflective teaching strategies that can be used in the context of all learning environments. There are ready-to-use ideas on:

- Getting started and developing appropriate learning environments for self-reflection
- Program planning to include reflective teaching and learning
- Questioning and self-assessment techniques

There is a useful and understandable section on self- and group-evaluation that addresses the difference between assessment and evaluation. Samples of forms used for self-reflection and assessment are offered. This book is recommended for K-12 teachers looking for ways to begin self-reflection work with their students and increase their ability to make assessment a part of their everyday lives.

(AL# 050.6THITHE)

Winbury, John and Christine Evans. *Poway Portfolio Project*, 1991. Available from: Poway School District, 10621 Birch Bluff, San Diego, CA 92131.

This paper describes the first three years of a portfolio project at the elementary school level in Poway, California. It includes the performance criteria for reading, writing, listening and speaking in grades K-5. There are also criteria for evaluating the collection of work in the portfolio as a whole. One conclusion that project teachers have reached is that there is a need for shared standards across classrooms.

(AL# 470.3POWPOP)

Winner, Ellen. ***ARTS PROPEL: An Introductory Handbook*****, 1991. Available from: Educational Testing Service, Rosedale Rd., Princeton, NJ 08541 (609) 734-5686.**

This handbook contains the following information about the ARTS PROPEL project: philosophy, integration with instruction, portfolio production and content, domain projects that create a community of learners, performance criteria for entries in the portfolios and for the portfolios themselves, and comments from teachers and students. ARTS PROPEL is based on the philosophy that students are constructors of knowledge and instruction should create a community of learners. Assessment is based on the notion that competence of skilled adults is done by judgments of quality; therefore, we should develop these systems with students as well.

(AL# 000.6ARTPRI)

Winner, Ellen, and Roberta Camp. ***ARTS PROPEL: A Handbook for Imaginative Writing*****, 1991. Available from: Educational Testing Service, Rosedale Rd., Princeton, NJ 08541, (609) 734-5686.**

This handbook addresses itself to the writing portion of the ARTS PROPEL project. Included are sample domain projects, how to develop and use portfolios, what they've learned from the project, and samples of student work, including a complete portfolio. Domain projects present opportunities to students for engaging in in-depth, long-term activities that engage students directly with the demands and techniques of a specified kind of writing, and encourage them to make reflection and assessment part of their writing process. Guidelines for domain projects are presented, as well as samples for poetry and writing scenes.

The two major lessons learned are these: (1) It is essential to link innovative curriculum with teachers' professional development and with assessment practices; and (2) it is essential to involve students in the process of assessment so that assessment becomes an opportunity for reflection and learning.

(AL# 470.6ARTPRI)

Winner, Ellen, Lyle Davidson, and Larry Scripp. ***ARTS PROPEL: A Handbook for Music*****, 1992. Available from: Educational Testing Service, Rosedale Rd., Princeton, NJ 08541, (609) 734-5686.**

This handbook was written specifically for the music portion of the ARTS PROPEL project. Included are sample domain projects in music, suggested procedures for encouraging self-reflection on the part of students, portfolios, and practical assistance on implementation. Domain projects include individual performance, ensemble critique and comparisons, ensemble rehearsal, and ensemble direction.

Portfolios are again approached as vehicles for learning. The portfolio includes different types of things for different classes. The general music portfolio includes such things as questionnaires, peer interviews, journals, inventeed notation, listening for form, performance comparison, and class tests.

(AL# 810.6ARTPRM)

Winner, Ellen, and Seymour Simmons. *ARTS PROPEL: A Handbook for Visual Arts*, 1992. Available from: Educational Testing Service, Rosedale Rd., Princeton, NJ 08541, (609) 734-5686.

This handbook was developed for the visual arts component of the ARTS PROPEL project. It includes information on goals for students (students as producers of art, perceivers of art and self-reflectors) assessment (including things to look for in products, perceptions, and self-reflections), journals, domain projects, portfolios, teacher reactions to the project, and practical help on implementation.

The handbook focuses mostly on instruction. Performance criteria are not structured across classrooms; teachers and students develop their own as they go. However, they mostly do focus on the three areas of interest (producers, perceivers, and self-reflectors), and there is the requirement that criteria are publicly known. Examples are provided. Lots of samples of student work are included.

(AL# 810.6ARTPRV)

Wolf, Kenneth, and Yvonne Siu-Runyan. *Portfolio Purposes and Possibilities*. Located in: Journal of Adolescent and Adult Literacy 40, September 1996, pp. 30-37.

The author concurs with the general sentiment that portfolios for different purposes look different. He describes three purposes for portfolios and the differences in how they look and are used:

- *Ownership portfolios* are personalized collections of student work that emphasize student choice and self-assessment. Typically, students collect a variety of information that illustrates their progress, they reflect on the development of their work and their learning, and they set goals for themselves as learners. The main purpose of the ownership portfolio is to provide students with an opportunity to explore, extend, display, and reflect on their own learning.

- *Feedback portfolios* are comprehensive collections of student work and teacher records, assembled by student and teacher, that provide ongoing documentation of student learning. These portfolios typically contain student work and reflections and teachers' records on student learning—such as running records or observational records—as well as information from parents and peers.

Teachers, students, and parents use these portfolios to obtain a broad picture of student strengths and needs. The primary purpose of the feedback portfolio is to guide teachers and students in identifying effective learning and instructional strategies, as well as to communicate this information to parents.

- *Accountability portfolios* are selective collections of student work, teacher records, and standardized assessments that are submitted by students and teachers according to structured guidelines. Accountability portfolios typically contain student responses to standardized performance assessments, a selection of student work created according to specific criteria, and structured records from teachers. The primary purpose of this type of portfolio is to evaluate student achievement for accountability and program evaluation.

The author concludes that "portfolios are a means, not an end. The goal is not to create wonderful portfolios, but to promote more effective learning. A portfolio can accomplish the goal of advancing student learning only if the experiences documented are worthwhile." No sample student work, technical information, nor criteria for judging quality are included.

(AL# 150.6PORPUP)

Wolf, Kenneth, Barbara Whinery, and Patricia Hagerty. *Teaching Portfolios and Portfolio Conversations for Teacher Educators, Teachers, and Students.* Located in: Action in Teacher Education 17, Spring 1995, pp. 30-39.

The authors describe the way they used portfolios to improve their own university-level instruction. The authors believe that such portfolios will improve practice if: (a) portfolio conversations focus on teaching artifacts and teachers' questions about their own practice, (b) the sessions are efficiently run, (c) the portfolio group is carefully organized, and (d) the portfolio contents are built around a specific and extended teaching enterprise. They generalize their findings to K-12 teachers.

(AL# 130.4TEAPOP)

Yancey, Kathleen. *Portfolios in the Writing Classroom*, 1992. Available from: National Council of Teachers of English, 1111 Kenyon Rd., Urbana, IL 61801, (217) 328-3870.

The purpose of this book is to discuss and exemplify how portfolios can change what students and teachers learn from classroom writing. The power of portfolios comes from enhancement of performance through evaluation, feedback and self-reflection. The book contains nine articles—descriptions of portfolio projects and testimonials to their effectiveness in promoting student learning.

The initial article provides an overview to the book, and also discusses three dangers with respect to portfolios: (1) that thoughtless imitation will not result in the expected effects; (2) that premature research (that which occurs before teachers have time to practice and refine

their methods) will not validate the pedagogy; and (3) that co-option by large-scale testing programs will damage the usefulness of portfolios for instruction.

(AL# 470.3PORWRC)

Electronic Resources

The following entries are separated from the papers and documents above because they do not involve actual Assessment Resource Center holdings. Rather, they are electronic discussion groups and bulletin boards available over the Internet.

Martin Kimeldorf. ***Portfolio Palace.***

Martin Kimeldorf has announced an electronic bulletin board on portfolios that he is coordinating.

This board will be monitored to insure that only postings related to the topic of portfolios are uploaded. Materials must be practical as opposed to theoretical and not be offensive. "If you want to share ideas, ask questions, let others know what you are doing with portfolios—this is the place."

Location (directions): America Online (AOL), Electronic School House (keyword ESH), School to School: LINKS, Portfolio Palace.

"Related to the bulletin board located in the Portfolio Palace folder you'll find a library where you can upload (or download) portfolio samples, curriculums, worksheets, lessons, book reviews, lists of resources, notices about items you have uploaded for others, anything which might help people in their royal quest to use portfolios in education."

Karen Jones Shiver. ***Internet Discussion Group.*** **Maintained by: Alief ISD, Houston, TX.**

Karen Jones Shiver coordinates an Internet discussion group on portfolios. Her e-mail address is: kjshiver@tenet.edu

Scholastic Internet Center

Via Gopher: Point your gopher software at Scholastic.com:2003

Via World Wide Web: Connect to http://Scholastic.com:2005/

For more information on connecting, contact the network administrator: Eadie Adamson, Scholastic Network Development Group eadie@aol.com, or staff@scholastic.com (212) 343-4940.

Portfolio References Classification Scheme

Primary Focus of the Article

01 Theory—*paper discusses reasons to use portfolios or issues regarding portfolios*
02 Example—*an actual portfolio system is described*
03 Related—*the article may not be directly about portfolios, but is related, such as a newsletter about portfolios, or scoring rubrics*

Purpose for the Portfolio Scheme Described

04 Alternate Credit—*to obtain credit for a course not actually taken*
05 Celebration—*as a celebration of what a student has accomplished*
06 College Entrance—*as a selection mechanism for a college or university*
07 Curriculum or Program Evaluation—*to evaluate curriculum or a program*
08 Grading—*to assign grades in classes*
09 Graduation Requirement—*as a graduation requirement*
10 Instruction (classroom)—*as a classroom instructional tool*
10a Progress
10b Literacy
11 Job Application/Employability Skills—*to supplement a vita*
12 Large-Scale Assessment/Accountability—*as a means of collecting a broader range of performance for large-scale assessment*
13 Competency Assessment—*to certify student competence; promotion*
14 Needs Assessment—*to assess the needs of students, communities, teachers, etc.*
15 Parent Involvement—*to use to communicate with parents or involve parents* (plus student-led parent conferences)
16 Placement in Classes or Programs
17 Teacher Self-Reflection—*for teachers to use to think about what worked and what didn't*
17a Program evaluation

Subject Area Covered

18 All—*cross-disciplinary; more than one subject, but the subjects are not integrated*
19 Art/Music
20 Health
21 Interdisciplinary—*work represents tasks that combine subject areas, as in thematic units*
22 Language Arts (integrated)
23 Math
24 Reading
25 Science
26 Writing
26a Technical Writing
27 Other

Grade Level

28 Primary—*K-3*
29 Elementary—*4-6*
30 Secondary—*7-12*
31 Post-secondary—*college and university*
32 Special Education
33 All

Type of Portfolio

34 Individual—*contains the work of only one person*
35 Composite—*contains work across individuals*

Features of Portfolio System/Article

36 Includes Criteria: content—*individual entries*
37 whole portfolio
38 metacognition—*self-reflection*
39 Includes samples of student work
40 Discusses student self-reflection
41 Includes help with implementation
42 Discusses student self-selection
43 Degree of structure: low—*there is great leeway for what is included*
44 medium—*categories of entries are required, but choice of work within each category is open*
45 high—*exact work to be placed in the portfolio is specified*
45a Computer software

46 **Professional Portfolios**—*portfolios for teachers, principals and other staff or for buildings/districts*

47 **Catalogs**

INDEX

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03O'Neil (AL#050.3RELVAS)
03Paulson & Paulson (AL#340.6AFTREP)
03Paulson & Paulson (AL#500.6SETSTS)
03Paulson (AL#500.6STUSER)
03Portfolio News (AL#150.6PORNEW)
03Preece (AL#000.6SELMAM)
03Reckase (AL#150.6PORASE)
03Schmar (AL#150.6STUSEA)
03Schuman & Maier (AL#000.3SELRES)
03Schwartz (AL#470.6LETTHA)
03Shapley (AL#130.3IMPLAS)
03Short & Kauffman (AL#400.3HEASTV)
03Snider (AL#400.3RHOISL)
03Spicuzza (AL#150.6EVAPOA)
03VT Math. Port. Proj. (AL#500.3RESBOO)
03Villano (AL#470.6FAIMEL)
03Wilson & Wing Jan (AL#050.6THITHE)
03Winner & Simmons (AL#810.6ARTPRV)
04Ellsworth (AL#150.6ASSPRL)
05Kimeldorf (AL#000.6CREPOS)
05Mondor (AL#150.1EFFCHG)
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05Spandel & Culham (AL#150.6INCLSg/t/v02)
06Arter, Culham et al. (AL#150.6CLAASt/v13)
06College Bd. (AL#810.3ADVPLA)
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06Russell (AL#150.6COLPOA)
07Adams (AL#700.6PORASS)
07Schuman & Maier (AL#000.3SELRES)
08Bailey (AL#150.6REPACS)
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08Burke (AL#150.6PORCON)
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08Wagner, Brock et al. (AL#400.3DEVLIP)
08Wilkins (AL# 530.3STUPOA)
08Winbury & Evans (AL#470.3POWPOP)
09Darling-Hammond (AL#000.3GRAPOC)
10Ames & Sumner (AL#150.6SUPATR)
10Arter (AL#000.6NWESTS)
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10Erickson (AL#470.6DEVSTC)
10Ferguson (AL#500.3ZERMAA)
10Forster (AL#150.6PORASR)

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10Frazier (AL#470.3PORASF)
10Gahagan, Smith et al. (AL#400.3PROPRI)
10Galbraith (AL#000.6USIPON)
10Gitomer (AL#600.6MOVTOP)
10Glazer (AL#400.6PORBEY)
10Gomez (AL#150.6WHAARP)
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10Herbert (AL#000.3PORINR)
10Herter (AL#470.6WRTPOA)
10Hetterscheidt, Pott et al. (AL#400.3USICOR)
10Hewitt (AL#470.6PORPRI)
10Hill, Kamber et al. (AL#150.6WAYMAS)
10Horn & Olson (AL#000.3LANCOP)
10Hunt (AL#470.3STUMET)
10Ingalls & Jones (AL#470.3THELOT)
10Johnson (AL#150.6PERASH1)
10Kekic (AL#800.3ASSTEC)
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10Lee (AL#070.3SUGFRE)
10LeMahieu (AL#000.6USISTP)
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10Paulson, Paulson et al. (AL#150.6WHAMAA)
10Pokay & Tayeh (AL#500.3EFFPOU)
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10Unanue (AL#400.6CARPOA)
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10aBellanca (AL#000.6MULASM)
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10aHewitt (AL#470.6PORPRI)
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10aMacintosh (AL#150.6USEPOS)
10aMcClure, Walters et al. (AL#150.6NONUSS)
10aMondor (AL#150.1EFFCHG)
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10aPolakowski (AL#440.3LITPOC)
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10aStenmark (AL#500.3MATASM)

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10aSwicegood (AL#150.6PORBAA)
10aThomas (AL#000.3CALLEA)
10aThompson (AL#500.3PORMOD)
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10bGraves (AL#150.6PORPOR)
10bHansen (AL#440.6LITPOE)
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11Carr (AL#810.6PORFOL)
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11Scherban-Sierra (AL#130.3PORTHB)
11Selah (AL#000.3CRESTP)
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11WestEd (AL#223.3CARPRA)
12Adams (AL#700.6PORASS)
12Calkins (AL#400.3JUNINL4)
12Forster (AL#150.6PORASR)
12Gearhart (AL#150.6PORASW)
12Gearhart (AL#470.3WRIPOE)
12Gentile (AL#470.6WINCLA)
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13MI DOE (AL#000.3EMPSKA)
13Myford (AL#810.3MONIMP)
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13OR New Stnd's Project (AL#000.3STUPOQ)
13Russell (AL#150.6COLPOA)
13Scherban-Sierra (AL#130.3PORTHB)
13Spandel & Culham (AL#150.6INCLSg/t/v02)
13Univ. of Cambridge (AL#000.3ADVINCt/v)
13Wolf (AL#150.6PORPUP)
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15Austin (AL#150.6CHAVIS)
15Bietau (AL#150.6STUPAT)
15Burke (AL#150.6PORCON)
15Clarke (AL#150.6COMINC)
15Crowley (AL#500.3STUMAP)
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15Flood (AL#400.3REPREP)
15Gahagan, Smith et al. (AL#400.3PROPRI)
15Hackett (AL#500.6FUNTES)
15Hill, Kamber et al. (AL#150.6WAYMAS)
15Lambdin & Walker (AL#500.3PLAPOA)
15Lee (AL#070.3SUGFRE)
15Levi (AL#400.6ASSEDV)
15Little & Allan (AL#150.6STULET)
15Maier (AL#150.6STULEP)
15Malarz, D'Arcangelo et al. (AL#150.6REDASOt/v)
15McClure, Walters et al. (AL#150.6NONUSS)
15Paulson & Paulson (AL#340.6AFTREP)
15Winbury & Evans (AL#470.3POWPOP)
16Arter, Culham et al. (AL#150.6CLAASt/v13)
16Elliott & Harriman (AL#470.3FEASTO)
16Kingore (AL#050.3PORENA)
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16Viechnicki, Rohrer et al. (AL#070.6IMPOPA)
17ASCD (AL#130.4TEAPOR)
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17Frazier (AL#470.3COMPOI)
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17Galbraith (AL#000.6USIPON)
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18Arter, Culham et al. (AL#150.6CLAASt/v13)
18Austin (AL#150.6CHAVIS)
18Barrett (AL#150.6TECSUA)
18Bellanca (AL#000.6MULASM)
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18Campbell (AL#000.6TEAALE)
18Clarke (AL#150.6COMINC)
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18Graves (AL#150.6PORPOR)
18Herbert (AL#000.3PORINR)
18Hessler & Kuntz (AL#223.3STUPOE)
18Hill (AL#000.6PRAASA)
18Hill, Kamber et al. (AL#150.6WAYMAS)
18Hunt (AL#470.3STUMET)
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21Kuhns (AL#400.3UNDSHT)
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23Grady (AL#150.6GRAPRO2)
23Hackett (AL#500.6FUNTES)
23IL DOE (AL#150.6EFFSCR)
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25Coun. Chief St. School Officers (AL#600.3COLDES)
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25Hill, Kamber et al. (AL#150.6WAYMAS)
25OR New Stnd's Project (AL#000.3STUPOQ)
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26Burnham (AL#470.3POREVR)
26Culham (AL#130.4ALTASP)
26Elbow & Belanoff (AL#470.3STAUNO)
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27Wilcox (AL#130.4SMAPOT)
27Winner (AL#000.6ARTPRI)
27Winner, Davidson et al. (AL#810.6ARTPRM)
28Arter (AL#000.6NWESTS)
28Arter, Culham et al. (AL#150.6CLAASt/v13)
28Beacon Heights (AL#400.3PORTPR)
28Bishop (AL#440.3ONCURA)
28Calkins (AL#400.3JUNINL4)
28Gearhart (AL#470.3WRIPOE)
28Glazer (AL#400.6PORBEY)
28Grady (AL#150.6GRAPRO2)

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28Graves (AL#150.6PORPOR)
28Grosvenor (AL#400.3TAKASI)
28Hansen (AL#400.3LITPOH)
28Herbert (AL#000.3PORINR)
28Hill (AL#000.6PRAASA)
28Hunt (AL#470.3STUMET)
28Kingore (AL#050.3PORENA)
28Koretz, Stecher et al. (AL#000.6VERPOF)
28Lee (AL#070.3SUGFRE)
28Levi (AL#400.6ASSEDV)
28Lewis (AL#470.6APPPEA)
28Maier (AL#150.6STULEP)
28Malarz, D'Arcangelo et al. (AL#150.6REDASOt/v)
28Mengel (AL#150.6ELEPOS)
28Oboyski-Butler et al. (AL#400.6SHAJOE)
28Paulson (AL#500.6PORGUJ)
28Paulson (AL#500.6STUSER)
28Paulson & Paulson (AL#500.6SETSTS)
28Polakowski (AL#440.3LITPOC)
28Roe (AL#400.6PORIMW)
28Roskos (AL#070.3OFSCRS)
28Salinger (AL#440.3ANAEAL)
28Shapley (AL#400.3CANSTB)
28Short & Kauffman (AL#400.3HEASTV)
28Snider (AL#400.3RHOISL)
28Tierney, Carter et al. (AL#400.6PORASC)
28Valencia & Calfee (AL#400.3DEVUSL)
28Viechnicki, Rohrer et al. (AL#070.6IMPOPA)
28Vizyak (AL#440.3STUPOB)
28Winbury & Evans (AL#470.3POWPOP)
29Arter (AL#000.6NWESTS)
29Austin (AL#150.6CHAVIS)
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29Bietau (AL#150.6STUPAT)
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29Clemmons, Laase et al. (AL#400.3PORCLT)
29Coun. Chief St. School Officers (AL#600.3COLDES)
29Ferguson (AL#500.3ZERMAA)
29Flood (AL#400.3REPREP)
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29Frazier (AL#470.3PORASF)
29Gearhart (AL#470.3WRIPOE)
29Gentile (AL#470.6WINCLA)
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29Herbert (AL#000.3PORINR)
29Hetterscheidt, Pott et al. (AL#400.3USICOR)
29Hill (AL#000.6PRAASA)
29Hill, Kamber et al. (AL#150.6WAYMAS)
29Kingore (AL#050.3PORENA)
29LeMahieu (AL#470.3WRIPOC)
29Lewis (AL#470.6APPPEA)
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29Malarz, D'Arcangelo et al. (AL#150.6REDASOt/v)
29Mengel (AL#150.6ELEPOS)
29Mumme (AL#500.6PORASI)
29Oboyski-Butler et al. (AL#400.6SHAJOE)
29OR New Stnd's Project (AL#000.3STUPOQ)
29Rief (AL#470.3FINTHV)
29Schuman & Maier (AL#000.3SELRES)
29Short & Kauffman (AL#400.3HEASTV)
29Simmons (AL#470.3PORLAA)
29Snider (AL#400.3RHOISL)
29Thomas (AL#000.3CALLEA)
29Tierney, Carter et al. (AL#400.6PORASC)
29VT DOE (AL#500.3REPOFV)
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29VT Math. Port. Proj. (AL#500.3GRAFOB)
29VT Math. Port. Proj. (AL#500.3RESBOO)
29VT Math. Port. Proj. (AL#500.3TEAGUI)
29Winbury & Evans (AL#470.3POWPOP)
30Ames (AL#440.6SELRES)
30Arter (AL#000.6NWESTS)
30Arter, Culham et al. (AL#150.6CLAASt/v13)
30Bailey (AL#150.6REPACS)
30Bishop (AL#470.6REVTEW)
30Burrack (AL#810.3PORASM)
30CA DOE (AL#223.3CARTEA3)
30CA DOE (AL#600.3GOLSTE2)
30Carr (AL#810.6PORFOL)
30Clarke (AL#150.6COMINC)
30Collins & Dana (AL#000.3USIPOM)
30Coun. Chief St. School Officers (AL#600.3COLDES)
30Crowley (AL#500.3STUMAP)
30Darling-Hammond (AL#000.3GRAPOC)
30Daws (AL#000.3SCHWIP)
30Elliott & Harriman (AL#470.3FEASTO)
30Forster (AL#150.6PORASR)
30Gentile (AL#470.6WINCLA)
30Gitomer (AL#600.6MOVTOP)
30Grady (AL#150.6GRAPRO2)
30Graves (AL#150.6PORPOR)
30Hackett (AL#500.6FUNTES)
30Hancock (AL#150.6BUTWHA)
30Hansen (AL#400.3LITPOH)
30Herbert (AL#000.3PORINR)

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30Herter (AL#470.6WRTPOA)
30Ingalls & Jones (AL#470.3THELOT)
30Kekic (AL#800.3ASSTEC)
30Kimeldorf (AL#000.6CREPOS)
30Koretz, Stecher et al. (AL#000.6VERPOF)
30Krest (AL#470.6ADATHP)
30Kuhns (AL#400.3UNDSHT)
30Lambdin & Walker (AL#500.3PLAPOA)
30LeMahieu (AL#150.6PORLAS)
30LeMahieu (AL#000.6USISTP)
30LeMahieu (AL#470.3WRIPOC)
30Lewis (AL#470.6APPPEA)
30Malarz, D'Arcangelo et al. (AL#150.6REDASOt/v)
30MI DOE (AL#000.3CRESTP)
30MI DOE (AL#000.3EMPSKA)
30Mondor (AL#150.1EFFCHG)
30Moss (AL#470.6PORACI)
30Murdick (AL#150.6PORANP)
30Myford (AL#810.3MONIMP)
30Nat'l Ctr. for Res. in Voc. Ed. (AL#150.6ASS20Ev)
30Pritchard (AL#500.3STUPOT)
30Psych. Corp. (AL#000.3GUICAP)
30Russell (AL#150.6COLPOA)
30Schwartz (AL#470.6LETTHA)
30Selah (AL#000.3CRESTP)
30Sequin (AL#000.6PERPOR)
30Serrano (AL#000.3LOOPOA)
30Simmons (AL#470.3PORLAA)
30Thomas (AL#000.3CALLEA)
30Thompson (AL#500.3PORMOD)
30Tierney, Carter et al. (AL#400.6PORASC)
30Univ. of Cambridge (AL#000.3ADVINCt/v)
30VT DOE (AL#500.3REPOFV)
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30VT Math. Port. Proj. (AL#500.3GRAFOB)
30VT Math. Port. Proj. (AL#500.3RESBOO)
30VT Math. Port. Proj. (AL#500.3TEAGUI)
30Villano (AL#470.6FAIMEL)
30WestEd (AL#223.3CARPRA)
30Wilkins (AL# 530.3STUPOA)
30Winner (AL#000.6ARTPRI)
30Winner & Camp (AL#470.6ARTPRI)
30Winner, Davidson et al. (AL#810.6ARTPRM)
30Winner & Simmons (AL#810.6ARTPRV)
31Barton & Collins (AL#130.4PORTEE)
31Belanoff & Dickson (AL#000.6PORPRP)
31Borko (AL#130.4STUTEP)
31Burnham (AL#470.3POREVR)
31College Bd. (AL#810.3ADVPLA)
31Elbow & Belanoff (AL#470.3STAUNO)
31Ellsworth (AL#150.6ASSPRL)
31Erickson (AL#470.6DEVSTC)
31Fingeret (AL#440.3ITBELM)
31Graves (AL#150.6PORPOR)
31Hessler & Kuntz (AL#223.3STUPOE)
31Pokay & Tayeh (AL#500.3EFFPOU)
31Rousculp & Maring (AL#000.3PORFOC)
31Scherban-Sierra (AL#130.3PORTHB)
31Sequin (AL#000.6PERPOR)
31Wilcox (AL#130.4SMAPOT)
32Frazier (AL#470.3COMPOI)
32Gahagan, Smith et al. (AL#400.3PROPRI)
32Paulson & Paulson (AL#340.6AFTREP)
32Swicegood (AL#150.6PORBAA)
32Wagner, Brock et al. (AL#400.3DEVLIP)
33Adams (AL#700.6PORASS)
33Ames & Sumner (AL#150.6SUPATR)
33Barrett (AL#150.6TECSUA)
33Bellanca (AL#000.6MULASM)
33Brandt (AL#470.6WHEWRP)
33Burke (AL#150.6PORCON)
33CA Assessment Collaborative (AL#150.6CHACOU)
33CA DOE (AL#400.3CALLER2)
33Campbell (AL#000.6TEAALE)
33Coleman (AL#050.6PORASK)
33DeFabio (AL#400.3CHASTP)
33Donaldson (AL#810.3CRITES)
33Galbraith (AL#000.6USIPON)
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33Johnson (AL#150.6PERASH1)
33Lazear (AL#000.6MULINA)
33Little & Allan (AL#150.6STULET)
33Macintosh (AL#150.6USEPOS)
33McClure, Walters et al. (AL#150.6NONUSS)
33McRobbie (AL#150.6USIPOA)
33Mengel (AL#150.3CREPOP)
33Nat'l Ed. Assn. (AL#150.6STUPOR)
33Paulson (AL#150.6PORLOF)
33Paulson & Paulson (AL#150.6PORSTO)
33Paulson, Paulson et al. (AL#150.6WHAMAA)
33Salinger (AL#400.6CLABAP)
33Scholastic (AL#150.6SCHELP)
33Spandel & Culham (AL#150.6INCLSg/t/v02)
33Stenmark (AL#500.3MATASM)
33Unanue (AL#400.6CARPOA)
33Valencia (AL#400.3ASSREA)
33Vavrus (AL#150.6PUTPOT)
33Wolf (AL#150.6PORPUP)
33Yancey (AL#470.3PORWRC)

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34Adams (AL#700.6PORASS)
34Ames & Sumner (AL#150.6SUPATR)
34Arter, Culham et al. (AL#150.6CLAASt/v13)
34Assmt. Training Inst. (AL#150.6CLAASK)
34Austin (AL#150.6CHAVIS)
34Barton & Collins (AL#130.4PORTEE)
34Beacon Heights (AL#400.3PORTPR)
34Belanoff & Dickson (AL#000.6PORPRP)
34Bellanca (AL#000.6MULASM)
34Bietau (AL#150.6STUPAT)
34Bishop (AL#440.3ONCURA)
34Bishop (AL#470.6REVTEW)
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34Brandt (AL#470.6WHEWRP)
34Burke (AL#150.6PORCON)
34Burnham (AL#470.3POREVR)
34Burrack (AL#810.3PORASM)
34CA DOE (AL#223.3CARTEA3)
34CA DOE (AL#400.3CALLER2)
34CA DOE (AL#600.3GOLSTE2)
34Calkins (AL#400.3JUNINL4)
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34Carr (AL#810.6PORFOL)
34Clarke (AL#150.6COMINC)
34Clemmons, Laase et al. (AL#400.3PORCLT)
34Coleman (AL#050.6PORASK)
34College Bd. (AL#810.3ADVPLA)
34Collins & Dana (AL#000.3USIPOM)
34Coun. Chief St. School Officers (AL#600.3COLDES)
34Crowley (AL#500.3STUMAP)
34Darling-Hammond (AL#000.3GRAPOC)
34Daws (AL#000.3SCHWIP)
34Elbow & Belanoff (AL#470.3STAUNO)
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34Ellsworth (AL#150.6ASSPRL)
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34Gahagan, Smith et al. (AL#400.3PROPRI)
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34Gearhart (AL#150.6PORASW)
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34Griffin (AL#400.3LITPRO)
34Grosvenor (AL#400.3TAKASI)
34Gursky (AL#110.3MAIPOB)
34Hackett (AL#500.6FUNTES)
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34Herbert (AL#000.3PORINR)
34Herter (AL#470.6WRTPOA)
34Hessler & Kuntz (AL#223.3STUPOE)
34Hetterscheidt, Pott et al. (AL#400.3USICOR)
34Hewitt (AL#470.6PORPRI)
34Hill (AL#000.6PRAASA)
34Hill, Kamber et al. (AL#150.6WAYMAS)
34Ingalls & Jones (AL#470.3THELOT)
34Johnson (AL#150.6PERASH1)
34Kekic (AL#800.3ASSTEC)
34Kimeldorf (AL#000.6CREPOS)
34Kingore (AL#050.3PORENA)
34Koretz, Stecher et al. (AL#000.6VERPOF)
34Krest (AL#470.6ADATHP)
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34Lambdin & Walker (AL#500.3PLAPOA)
34Lazear (AL#000.6MULINA)
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34LeMahieu (AL#000.6USISTP)
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34LeMahieu (AL#470.3WRIPOC)
34Lewis (AL#470.6APPPEA)
34Little & Allan (AL#150.6STULET)
34Macintosh (AL#150.6USEPOS)
34Maier (AL#150.6STULEP)
34Malarz, D'Arcangelo et al. (AL#150.6REDASOt/v)
34McClure, Walters et al. (AL#150.6NONUSS)
34McRobbie (AL#150.6USIPOA)
34Mengel (AL#150.3CREPOP)
34Mengel (AL#150.6ELEPOS)
34MI DOE (AL#000.3EMPSKA)
34Mondor (AL#150.1EFFCHG)
34Moss (AL#470.6PORACI)
34Mumme (AL#500.6PORASI)
34Murdick (AL#150.6PORANP)
34Myford (AL#810.3MONIMP)
34Nat'l Ed. Assn. (AL#150.6STUPOR)
34Nat'l Ctr. for Res. in Voc. Ed. (AL#150.6ASS20Ev)
34Paulson (AL#150.6PORLOF)
34Paulson (AL#500.6PORGUJ)
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34Paulson, Paulson et al. (AL#150.6WHAMAA)
34Pokay & Tayeh (AL#500.3EFFPOU)
34Polakowski (AL#440.3LITPOC)
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34Rief (AL#470.3FINTHV)
34Roe (AL#150.6THAWAT)
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34Salinger (AL#400.6CLABAP)
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34Valencia (AL#400.3ASSREA)
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34Vavrus (AL#150.6PUTPOT)
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34Wagner, Brock et al. (AL#400.3DEVLIP)
34WestEd (AL#223.3CARPRA)
34Wilcox (AL#130.4SMAPOT)
34Wilkins (AL# 530.3STUPOA)
34Winbury & Evans (AL#470.3POWPOP)
34Winner (AL#000.6ARTPRI)
34Winner & Camp (AL#470.6ARTPRI)
34Winner, Davidson et al. (AL#810.6ARTPRM)
34Winner & Simmons (AL#810.6ARTPRV)
34Wolf (AL#150.6PORPUP)
34Yancey (AL#470.3PORWRC)
35Arter & Paulson (AL#150.6COMPOW)
35Frazier (AL#470.3COMPOI)
35Frazier (AL#470.3PORASF)
35Horn & Olson (AL#000.3LANCOP)
35Meyer, Schuman et al. (AL#105.6NWEWHP)
35Valencia & Calfee (AL#400.3DEVUSL)
36Bellanca (AL#000.6MULASM)
36Bishop (AL#470.6REVTEW)
36Burke (AL#150.6PORCON)
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36Calkins (AL#400.3JUNINL4)
36Clemmons, Laase et al. (AL#400.3PORCLT)
36Darling-Hammond (AL#000.3GRAPOC)
36Forster (AL#150.6PORASR)
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36Lazear (AL#000.6MULINA)
36LeMahieu (AL#150.6PORLAS)
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36MI DOE (AL#000.3EMPSKA)
36Moss (AL#470.6PORACI)
36OR New Stnd's Project (AL#000.3STUPOQ)
36Serrano (AL#000.3LOOPOA)
36Shapley (AL#400.3CANSTB)
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36Thompson (AL#500.3PORMOD)
36Tierney, Carter et al. (AL#400.6PORASC)
36Unanue (AL#400.6CARPOA)
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36VT Math. Port. Proj. (AL#500.3GRAFOB)
36VT Math. Port. Proj. (AL#500.3TEAGUI)
36WestEd (AL#223.3CARPRA)
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36Winner (AL#000.6ARTPRI)
36Winner, Davidson et al. (AL#810.6ARTPRM)
36Winner & Simmons (AL#810.6ARTPRV)
37Adams (AL#700.6PORASS)
37Arter, Culham et al. (AL#150.6CLAASt13 & v13)
37Bellanca (AL#000.6MULASM)
37Bishop (AL#470.6REVTEW)

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37Burke (AL#150.6PORCON)
37CA DOE (AL#600.3GOLSTE2)
37Collins & Dana (AL#000.3USIPOM)
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37DeFabio (AL#400.3CHASTP)
37Elliott & Harriman (AL#470.3FEASTO)
37Forster (AL#150.6PORASR)
37Gahagan, Smith et al. (AL#400.3PROPRI)
37Gearhart (AL#470.3WRIPOE)
37Hewitt (AL#470.6PORPRI)
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37LeMahieu (AL#000.6USISTP)
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37Moss (AL#470.6PORACI)
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37Rousculp & Maring (AL#000.3PORFOC)
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37Thomas (AL#000.3CALLEA)
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37VT DOE (AL#500.3REPOFV)
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37Viechnicki, Rohrer et al. (AL#070.6IMPOPA)
37Wagner, Brock et al. (AL#400.3DEVLIP)
37Winbury & Evans (AL#470.3POWPOP)
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37Winner, Davidson et al. (AL#810.6ARTPRM)
38Ames & Sumner (AL#150.6SUPATR)
38Arter (AL#000.6NWESTS)
38Arter, Culham et al. (AL#150.6CLAASt/v13)
38Barton & Collins (AL#130.4PORTEE)
38Donaldson (AL#810.3CRITES)
38Horn & Olson (AL#000.3LANCOP)
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38Tierney, Carter et al. (AL#400.6PORASC)
38Valencia & Calfee (AL#400.3DEVUSL)
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39Arter, Culham et al. (AL#150.6CLAASt/v13)
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39Belanoff & Dickson (AL#000.6PORPRP)
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39Burrack (AL#810.3PORASM)
39CA DOE (AL#400.3CALLER2)
39Clemmons, Laase et al. (AL#400.3PORCLT)
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39Darling-Hammond (AL#000.3GRAPOC)
39Elliott & Harriman (AL#470.3FEASTO)
39Forster (AL#150.6PORASR)
39Frazier (AL#470.3COMPOI)
39Galbraith (AL#000.6USIPON)
39Gentile (AL#470.6WINCLA)
39Glazer (AL#400.6PORBEY)
39Graves (AL#150.6PORPOR)
39Hackett (AL#500.6FUNTES)
39Hansen (AL#400.3LITPOH)
39Hewitt (AL#470.6PORPRI)
39Horn & Olson (AL#000.3LANCOP)
39Kuhns (AL#400.3UNDSHT)
39Lambdin & Walker (AL#500.3PLAPOA)
39Levi (AL#400.6ASSEDV)
39Malarz, D'Arcangelo et al. (AL#150.6REDASOt/v)
39MI DOE (AL#000.3EMPSKA)
39Moss (AL#470.6PORACI)
39Nat'l Ctr. for Res. in Voc. Ed. (AL#150.6ASS20Ev)
39Oboyski-Butler et al. (AL#400.6SHAJOE)
39Paulson & Paulson (AL#500.6SETSTS)
39Paulson (AL#500.6PORGUJ)
39Paulson (AL#500.6STUSER)
39Rief (AL#470.3FINTHV)
39Rousculp & Maring (AL#000.3PORFOC)
39Sequin (AL#000.6PERPOR)
39Serrano (AL#000.3LOOPOA)
39Short & Kauffman (AL#400.3HEASTV)
39Stenmark (AL#500.3MATASM)
39Tierney, Carter et al. (AL#400.6PORASC)
39VT DOE (AL#500.3REPOFV)
39Winner & Camp (AL#470.6ARTPRI)
39Winner, Davidson et al. (AL#810.6ARTPRM)
40Ames (AL#440.6SELRES)
40Ames & Sumner (AL#150.6SUPATR)
40Arter (AL#000.6NWESTS)
40Arter, Culham et al. (AL#150.6CLAASt/v13)
40Austin (AL#150.6CHAVIS)
40Beacon Heights (AL#400.3PORTPR)
40Bellanca (AL#000.6MULASM)
40Biship (AL#470.6REVTEW)
40Borko (AL#130.4STUTEP)
40Brandt (AL#470.6WHEWRP)
40Brookhart (AL#150.6STUANF)
40Burke (AL#150.6PORCON)

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40Burrack (AL#810.3PORASM)
40CA DOE (AL#600.3GOLSTE2)
40Calkins (AL#400.3JUNINL4)
40Campbell (AL#000.6TEAALE)
40Clemmons, Laase et al. (AL#400.3PORCLT)
40Collins & Dana (AL#000.3USIPOM)
40Coun. Chief St. School Officers (AL#600.3COLDES)
40Elbow & Belanoff (AL#470.3STAUNO)
40Elliott & Harriman (AL#470.3FEASTO)
40Ferguson (AL#500.3ZERMAA)
40Fingeret (AL#440.3ITBELM)
40Flood (AL#400.3REPREP)
40Forster (AL#150.6PORASR)
40Frazier (AL#470.3COMPOI)
40Frazier (AL#470.3PORASF)
40Gitomer (AL#600.6MOVTOP)
40Glazer (AL#400.6PORBEY)
40Graves (AL#150.6PORPOR)
40Hackett (AL#500.6FUNTES)
40Hansen (AL#400.3LITPOH)
40Herbert (AL#000.3PORINR)
40Herter (AL#470.6WRTPOA)
40Hetterscheidt, Pott et al. (AL#400.3USICOR)
40Hewitt (AL#470.6PORPRI)
40Hill (AL#000.6PRAASA)
40Hill, Kamber et al. (AL#150.6WAYMAS)
40Howard (AL#470.6MAKTHW)
40Hunt (AL#470.3STUMET)
40Ingalls & Jones (AL#470.3THELOT)
40Kimeldorf (AL#000.6CREPOS)
40Kingore (AL#050.3PORENA)
40Krest (AL#470.6ADATHP)
40Kuhns (AL#400.3UNDSHT)
40Lambdin & Walker (AL#500.3PLAPOA)
40Lavaroni (AL#050.5SELFEV)
40Lazear (AL#000.6MULINA)
40LeMahieu (AL#000.6USISTP)
40LeMahieu (AL#470.3WRIPOC)
40Levi (AL#400.6ASSEDV)
40Little & Allan (AL#150.6STULET)
40Maier (AL#150.6STULEP)
40Malarz, D'Arcangelo et al. (AL#150.6REDASO/v)
40Oboyski-Butler et al. (AL#400.6SHAJOE)
40OR New Stnd's Project (AL#000.3STUPOQ)
40Paulson (AL#150.6PORLOF)
40Paulson (AL#500.6PORGUJ)
40Paulson (AL#500.6STUSER)
40Paulson & Paulson (AL#500.6SETSTS)
40Paulson, Paulson et al. (AL#150.6WHAMAA)
40Preece (AL#000.6SELMAM)
40Rief (AL#470.3FINTHV)
40Rousculp & Maring (AL#000.3PORFOC)
40Salinger (AL#400.6CLABAP)
40Schmar (AL#150.6STUSEA)
40Schwartz (AL#470.6LETTHA)
40Thompson (AL#500.3PORMOD)
40Tierney, Carter et al. (AL#400.6PORASC)
40Villano (AL#470.6FAIMEL)
40Vizyak (AL#440.3STUPOB)
40Wagner, Brock et al. (AL#400.3DEVLIP)
40Wilkins (AL# 530.3STUPOA)
40Wilcox (AL#130.4SMAPOT)
40Wilson & Wing Jan (AL#050.6THITHE)
40Winner (AL#000.6ARTPRI)
40Winner & Camp (AL#470.6ARTPRI)
40Winner, Davidson et al. (AL#810.6ARTPRM)
40Winner & Simmons (AL#810.6ARTPRV)
40Wolf (AL#150.6PORPUP)
40Yancey (AL#470.3PORWRC)
41Adams (AL#700.6PORASS)
41Ames (AL#440.6SELRES)
41Ames & Sumner (AL#150.6SUPATR)
41Arter, Culham et al. (AL#150.6CLAASt/v13)
41Austin (AL#150.6CHAVIS)
41Beacon Heights (AL#400.3PORTPR)
41Bishop (AL#470.6REVTEW)
41Burnham (AL#470.3POREVR)
41Carr (AL#810.6PORFOL)
41Clemmons, Laase et al. (AL#400.3PORCLT)
41College Bd. (AL#810.3ADVPLA)
41Collins & Dana (AL#000.3USIPOM)
41Crowley (AL#500.3STUMAP)
41Daws (AL#000.3SCHWIP)
41Erickson (AL#470.6DEVSTC)
41Ferguson (AL#500.3ZERMAA)
41Forster (AL#150.6PORASR)
41Frazier (AL#470.3PORASF)
41Gahagan, Smith et al. (AL#400.3PROPRI)
41Galbraith (AL#000.6USIPON)
41Graves (AL#150.6PORPOR)
41Grosvenor (AL#400.3TAKASI)
41Hansen (AL#400.3LITPOH)
41Hansen (AL#440.6LITPOE)
41Herbert (AL#000.3PORINR)
41Herter (AL#470.6WRTPOA)
41Horn & Olson (AL#000.3LANCOP)
41Howard (AL#470.6MAKTHW)
41Kekic (AL#800.3ASSTEC)
41Kimeldorf (AL#000.6CREPOS)
41Kuhns (AL#400.3UNDSHT)
41Lambdin & Walker (AL#500.3PLAPOA)

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41Lee (AL#070.3SUGFRE)
41LeMahieu (AL#470.3WRIPOC)
41Maier (AL#150.6STULEP)
41Malarz, D'Arcangelo et al. (AL#150.6REDASOt/v)
41McClure, Walters et al. (AL#150.6NONUSS)
41Nat'l Ed. Assn. (AL#150.6STUPOR)
41Oboyski-Butler et al. (AL#400.6SHAJOE)
41Paulson (AL#500.6PORGUJ)
41Paulson (AL#500.6STUSER)
41Polakowski (AL#440.3LITPOC)
41Pritchard (AL#500.3STUPOT)
41Psych. Corp. (AL#000.3GUICAP)
41Rief (AL#470.3FINTHV)
41Rousculp & Maring (AL#000.3PORFOC)
41Salinger (AL#400.6CLABAP)
41Schwartz (AL#470.6LETTHA)
41Serrano (AL#000.3LOOPOA)
41Short & Kauffman (AL#400.3HEASTV)
41Stenmark (AL#500.3MATASM)
41Tierney, Carter et al. (AL#400.6PORASC)
41Unanue (AL#400.6CARPOA)
41VT Math. Port. Proj. (AL#500.3TEAGUI)
41Villano (AL#470.6FAIMEL)
41WestEd (AL#223.3CARPRA)
41Winner (AL#000.6ARTPRI)
41Winner & Camp (AL#470.6ARTPRI)
41Winner, Davidson et al. (AL#810.6ARTPRM)
41Winner & Simmons (AL#810.6ARTPRV)
42Ames & Sumner (AL#150.6SUPATR)
42Arter, Culham et al. (AL#150.6CLAASt/v13)
42Austin (AL#150.6CHAVIS)
42Beacon Heights (AL#400.3PORTPR)
42Bellanca (AL#000.6MULASM)
42Borko (AL#130.4STUTEP)
42Burke (AL#150.6PORCON)
42CA DOE (AL#600.3GOLSTE2)
42Calkins (AL#400.3JUNINL4)
42Clemmons, Laase et al. (AL#400.3PORCLT)
42Collins & Dana (AL#000.3USIPOM)
42Crowley (AL#500.3STUMAP)
42Darling-Hammond (AL#000.3GRAPOC)
42Elbow & Belanoff (AL#470.3STAUNO)
42Elliott & Harriman (AL#470.3FEASTO)
42Flood (AL#400.3REPREP)
42Forster (AL#150.6PORASR)
42Frazier (AL#470.3COMPOI)
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42Galbraith (AL#000.6USIPON)
42Glazer (AL#400.6PORBEY)
42Graves (AL#150.6PORPOR)
42Hancock (AL#150.6BUTWHA)
42Hansen (AL#400.3LITPOH)
42Herbert (AL#000.3PORINR)
42Hetterscheidt, Pott et al. (AL#400.3USICOR)
42Hewitt (AL#470.6PORPRI)
42Kekic (AL#800.3ASSTEC)
42Kimeldorf (AL#000.6CREPOS)
42Kingore (AL#050.3PORENA)
42Krest (AL#470.6ADATHP)
42Lambdin & Walker (AL#500.3PLAPOA)
42LeMahieu (AL#470.3WRIPOC)
42Little & Allan (AL#150.6STULET)
42Malarz, D'Arcangelo et al. (AL#150.6REDASOt/v)
42Murdick (AL#150.6PORANP)
42OR New Stnd's Project (AL#000.3STUPOQ)
42Paulson (AL#150.6PORLOF)
42Paulson, Paulson et al. (AL#150.6WHAMAA)
42Rousculp & Maring (AL#000.3PORFOC)
42Salinger (AL#400.6CLABAP)
42Sequin (AL#000.6PERPOR)
42Tierney, Carter et al. (AL#400.6PORASC)
42Valencia (AL#400.3ASSREA)
42Vavrus (AL#150.6PUTPOT)
42Vizyak (AL#440.3STUPOB)
42Winner (AL#000.6ARTPRI)
42Winner & Camp (AL#470.6ARTPRI)
42Winner, Davidson et al. (AL#810.6ARTPRM)
42Winner & Simmons (AL#810.6ARTPRV)
42Yancey (AL#470.3PORWRC)
43Barton & Collins (AL#130.4PORTEE)
43Beacon Heights (AL#400.3PORTPR)
43Bellanca (AL#000.6MULASM)
43CA DOE (AL#400.3CALLER2)
43Collins & Dana (AL#000.3USIPOM)
43Gearhart (AL#470.3WRIPOE)
43Gentile (AL#470.6WINCLA)
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43Hessler & Kuntz (AL#223.3STUPOE)
43Lazear (AL#000.6MULINA)
43Lee (AL#070.3SUGFRE)
43Little & Allan (AL#150.6STULET)
43Malarz, D'Arcangelo et al. (AL#150.6REDASOt/v)
43Moss (AL#470.6PORACI)
43Paulson (AL#150.6PORLOF)
43Sequin (AL#000.6PERPOR)
43Simmons (AL#470.3PORLAA)

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43VT DOE (AL#500.3REPOFV)
44Austin (AL#150.6CHAVIS)
44Bishop (AL#440.3ONCURA)
44Borko (AL#130.4STUTEP)
44Burke (AL#150.6PORCON)
44Burnham (AL#470.3POREVR)
44Burrack (AL#810.3PORASM)
44CA DOE (AL#223.3CARTEA3)
44CA DOE (AL#600.3GOLSTE2)
44Calkins (AL#400.3JUNINL4)
44Clemmons, Laase et al. (AL#400.3PORCLT)
44Coleman (AL#050.6PORASK)
44College Bd. (AL#810.3ADVPLA)
44Coun. Chief St. School Officers (AL#600.3COLDES)
44Crowley (AL#500.3STUMAP)
44Darling-Hammond (AL#000.3GRAPOC)
44Elbow & Belanoff (AL#470.3STAUNO)
44Elliott & Harriman (AL#470.3FEASTO)
44Ferguson (AL#500.3ZERMAA)
44Flood (AL#400.3REPREP)
44Forster (AL#150.6PORASR)
44Frazier (AL#470.3COMPOI)
44Galbraith (AL#000.6USIPON)
44Hackett (AL#500.6FUNTES)
44Horn & Olson (AL#000.3LANCOP)
44Kimeldorf (AL#000.6CREPOS)
44Krest (AL#470.6ADATHP)
44Kuhns (AL#400.3UNDS'IT)
44Lambdin & Walker (AL#500.3PLAPOA)
44Lee (AL#070.3SUGFRE)
44LeMahieu (AL#470.3WRIPOC)
44MI DOE (AL#000.3EMPSKA)
44OR New Stnd's Project (AL#000.3STUPOQ)
44Psych. Corp. (AL#000.3GUICAP)
44Rousculp & Maring (AL#000.3PORFOC)
44Russell (AL#150.6COLPOA)
44Salinger (AL#400.6CLABAP)
44Selah (AL#000.3CRESTP)
44Serrano (AL#000.3LOOPOA)
44Shapley (AL#400.3CANSTB)
44Swicegood (AL#150.6PORBAA)
44Thomas (AL#000.3CALLEA)
44Thompson (AL#500.3PORMOD)
44Tierney, Carter et al. (AL#400.6PORASC)
44Univ. of Cambridge (AL#000.3ADVINCUv)
44Valencia (AL#400.3ASSREA)
44Vavrus (AL#150.6PUTPOT)
44VT Math. Port. Proj. (AL#500.3TEAGUI)
44Wagner, Brock et al. (AL#400.3DEVLIP)
44WestEd (AL#223.3CARPRA)
44Wilcox (AL#130.4SMAPOT)
44Winner (AL#000.6ARTPRI)
44Winner & Camp (AL#470.6ARTPRI)
44Winner, Davidson et al. (AL#810.6ARTPRM)
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45Forster (AL#150.6PORASR)
45aBarrett (AL#150.6TECSUA)
45aGrady (AL#150.6GRAPRO2)
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45aMcClure, Walters et al. (AL#150.6NONUSS)
45aMengel (AL#150.3CREPOP)
45aMengel (AL#150.6ELEPOS)
45aMengeling (AL#150.6INFMAT)
45aNat'l Computer Systems (AL#150.6NCSABA)
45aScholastic (AL#150.6SCHELP)
46Adams (AL#700.6PORASS)
46ASCD (AL#130.4TEAPOR)
46Athanases (AL#130.6TEAREE)
46Barton & Collins (AL#130.4PORTEE)
46Bird (AL#130.4NOTONA)
46Cerbin (AL#130.4CONASL)
46Culham (AL#130.4ALTASP)
46Doolittle (AL#130.6TEAPOA)
46Graves (AL#150.6PORPOR)
46Gursky (AL#110.3MAIPOB)
46Martin-Kniep (AL#130.4TEACHA)
46Martin-Kniep (AL#130.4TEALEP)
46Nat'l Bd. Prof. Teach. Stands. (AL#130.3NATBOP)
46Osterman (AL#130.3BEGTEA)
46Osterman (AL#130.3PUTPRP)
46Pokay & Tayeh (AL#500.3EFFPOU)
46Rousculp & Maring (AL#000.3PORFOC)
46Scherban-Sierra (AL#130.3PORTHB)
46Teacher Assessment Project (AL#130.4BIOEXA)
46Teacher Assessment Project (AL#130.4ELELTA)
46Teacher Assessment Project (AL#130.4PORDEH)
46Wagner, Brock et al. (AL#400.3DEVLIP)
46Wolf (AL#130.4TEAPOP)

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